Joun Development Projects Series

Digital Transformation of Municipalities in Lebanon: For The Municipality of The Town of Joun

Municipal Digital Transformation refers to the process by which local governments and municipalities leverage technology and data-driven approaches to enhance their services, improve efficiency, and engage with residents

Developed by: Antoine J. Burkush, PhD

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Abstract

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Contents

Digital Transformation of municipalities in Lebanon: For the Municipality of the Town of Joun 1
Acknowledgments 5
الشكر والتقدير 6
Preface 8
Digital Transformation of municipalities in Lebanon: For the Municipality of the Town of Joun 10
Background: **11**
Smart Municipalities **11**
Lebanon Digital Transformation: OMSAR **15**
Municipalities in Lebanon face several challenges and weaknesses. **26**
General organizational structures of municipalities in Lebanon **27**
Municipal Transformation Process 28
1. Vision and Goal Setting: **29**
2. Needs Assessment: **29**
3. SWOT Analysis: **29**
4. Strategic Planning: **29**
5. Digital Transformation: **29**
6. Public-Private Partnerships (PPPs): **29**
7. Capacity Building: **29**
8. Financial Sustainability: **29**
9. Community Engagement: **30**
10. Monitoring and Evaluation: **30**
Phases of Transformation 30
Setting and Agreeing On the Approach (Year 0): **30**
Launching The Transformation (Year 1): **30**
Steady State of Transformation Delivery (Years 2-5): **31**
Program Wind Down and Continuous Improvement (Year 6): **31**
The Importance of Oversight: 31
Continuous Improvement Lead and Mayor Accountability: **31**

Complexity and Challenges: 31
Staying Focused: 32
What is Strategic Planning? 32
VISION, MISSION & VALUES 32
VISION 32
MISSION 33
VALUES 33
Six Strategic GOALS and Nine areas of focus 34
Areas of Focus 35
Service Excellence and Good Governance 36
Municipal Digital Transformation: 38
About Municipal Digital Transformation: 38
Benefits of Transparency in a municipality 38
Tools for establishing transparency in a municipality: 39
Transforming Joun Municipality into an e-Municipality 40
Transparency in Lebanon: 40
Concept Note for A Town of Joun Website 41
Goal of The Town of Joun Website 41
PURPOSE 41
Concept Note for A Town Mobile App: 42
Benefits of a mobile municipality app 42
ABOUT Public-private Partnerships (PPP) 44
Successful Strategies for Change Management in Local Government 45
1. Engage Stakeholders Early and Often 45
2. Develop a Clear Vision and Roadmap 45
3. Provide Training and Support 45
4. Foster a Positive Organizational Culture 45
5. Monitor and Evaluate Progress 46
6. Leadership Alignment 46
Role of Information Technology in Municipal Governments Capacity Building 46

Challenges of Implementing workflow automation in municipalities 47

Addressing resistance to change 49

Benefits of Technology-based records management 50

Convincing staff to transition from paper-based records to digital systems .. 51

Steps of Implementing automated workflows in a municipality 53

Key Definitions Related to Software Functions, Particularly in The Context of Records Management Software: 55

Several Software Solutions for Modern Records Management In Municipalities, ... 56

Some Real-World Examples of Municipalities That Have Successfully Implemented Automated Workflows to Improve Their Operations in The USA: 57

Steps for Software Selection 58

Example Workflow 60

Profiles of Some Top Records Management Software Solutions That Could Be Beneficial for Municipalities: 61

GovPilot 63

Questions to Consider Before You Begin the Procurement Process 64

Making Sense of Records Management Software Options 65

SOFTWARE PROFILES KEY 73

BIBLIOGRAPHY and FOOTNOTES 79

END OF THE DOCUMENT 83

Acknowledgments

This collection of proposals is the result of a shared vision and a collaborative journey, guided by the input, dedication, and insights of countless individuals who hold Joun close to their hearts. It would not have been possible without the unwavering support and contributions of community members, experts, stakeholders, and local leaders, each of whom brought their unique perspectives to the table.

First and foremost, I extend my heartfelt gratitude to the residents of Joun, whose voices, ideas, and aspirations have been the foundation of this work. Your willingness to share your thoughts and dreams for our town has been invaluable in shaping proposals that truly reflect our community's spirit and goals. Your participation in discussions, surveys, and community gatherings has been a testament to your commitment to Joun's future.

Special thanks to all whose contributions were instrumental in refining our vision.

To the local leaders and stakeholders who championed this project, your support has been a vital source of encouragement. Your leadership and understanding of Joun's unique challenges and opportunities have given depth to these proposals, grounding them in both our town's history and its potential for growth.

Finally, I would like to thank everyone who worked behind the scenes—whether gathering data, conducting research, or organizing meetings—your efforts have been crucial in bringing this work to life.

Together, we have created a roadmap for Joun's future that honors our heritage and inspires a brighter tomorrow. I am truly grateful to each of you for your contributions, enthusiasm, and dedication to this endeavor.

With sincere appreciation,

Dr Antoine J. Burkush, PhD

الشكر والتقدير

هذه المجموعة من المقترحات هي نتيجة رؤية مشتركة ورحلة تعاونية ، تسترشد بمدخلات وتفاني ورؤى عدد لا يحصى من الأفراد الذين يحملون جون قريبا من قلوبهم. لم يكن ذلك ممكنا بدون الدعم والمساهمات الثابتة من أعضاء المجتمع والخبراء وأصحاب المصلحة والقادة المحليين ، الذين قدم كل منهم وجهات نظره الفريدة إلى الطاولة.

أولا وقبل كل شيء، أعرب عن خالص امتناني لسكان جون، الذين كانت أصواتهم وأفكارهم وتطلعاتهم أساس هذا العمل. لقد كان استعدادك لمشاركة أفكارك وأحلامك لمدينتنا لا يقدر بثمن في تشكيل المقترحات التي تعكس حقا روح مجتمعنا وأهدافه. كانت مشاركتك في المناقشات والاستطلاعات والتجمعات المجتمعية شهادة على التزامك بمستقبل جون.

شكر خاص للذين كانت مساهماتهم مفيدة في صقل رؤيتنا.

إلى القادة المحليين وأصحاب المصلحة الذين دافعوا عن هذا المشروع ، كان دعمكم مصدرا حيويا للتشجيع. لقد أعطت قيادتك وفهمك لتحديات وفرص جون الفريدة عمقا لهذه المقترحات ، مما جعلها راسخة في كل من تاريخ مدينتنا وإمكاناتها للنمو.

أخيرا ، أود أن أشكر كل من عمل وراء الكواليس - سواء في جمع البيانات أو إجراء البحوث أو تنظيم الاجتماعات - كانت جهودك حاسمة في إحياء هذا العمل.

معا ، أنشأنا خارطة طريق لمستقبل جون تكرم تراثنا وتلهم غدا أكثر إشراقا. أنا ممتن حقا لكل واحد منكم على مساهماتكم وحماسكم وتفانيكم في هذا المسعى.

مع خالص التقدير،

د. انطوان جان البرخش

مشاريع

مبادرات شخصية

"من أجل الصالح العام"

Joun Development Projects

"Pro Bono Publico"

Dr Antoine J. Burkush, PhD

رؤية واحدة، هوية واحدة، مجتمع واحد

Preface

In a world where rapid change is the new normal, the importance of strategic, sustainable, and community-centered development is paramount. Joun, with its rich cultural heritage, natural beauty, and resilient community, stands at a crossroads—one that presents both challenges and extraordinary opportunities. As we look toward Joun's future, it is essential that our plans honor the town's heritage, respond to today's needs, and set a course for future generations to thrive.

This series of proposals is the result of a deeply collaborative effort to envision Joun's path forward. Each plan reflects input from residents, local stakeholders, and community leaders, resulting in a shared vision that is both ambitious and respectful of our town's unique identity. These proposals encompass a comprehensive range of initiatives, from infrastructure and economic development to cultural preservation and environmental stewardship, with each component tailored to address Joun's specific strengths, challenges, and aspirations.

Our proposals emphasize a commitment to public infrastructure improvements, economic empowerment, environmental sustainability, and cultural continuity. From plans to enhance recreational facilities and community services to initiatives for sustainable tourism and green energy, each proposal aims to make Joun a model of progressive yet grounded development. The ultimate goal is to create a vibrant, inclusive, and resilient community—one that embodies the values, dreams, and talents of its people.

I extend my heartfelt gratitude to everyone who has contributed to this vision. Your dedication, ideas, and insight have been invaluable, illuminating the pathway to a future that aligns with Joun's core values while embracing growth and innovation. These proposals are an invitation to all residents of Joun to imagine, participate, and help build a community that harmonizes tradition with the possibilities of tomorrow.

As you review this collection, I encourage you to see not just plans, but a vision for what Joun can become. Let us move forward together, translating these ideas into action, and creating a brighter, thriving, and unified future for Joun.

With deep respect and optimism,

Dr Antoine J. Burkush, PhD

مقدمة

في عالم حيث التغيير السريع هو الوضع الطبيعي الجديد ، فإن أهمية التنمية الاستراتيجية والمستدامة التي تركز على المجتمع أمر بالغ الأهمية. تقف جون ، بتراثها الثقافي الغني وجمالها الطبيعي ومجتمعها المرن ، على مفترق طرق - مفترق طرق يمثل تحديات وفرصا غير عادية. بينما نتطلع إلى مستقبل جون ، من الضروري أن تكرم خططنا تراث المدينة ، وتستجيب لاحتياجات اليوم ، وتضع مسارا للأجيال القادمة لتزدهر.

هذه السلسلة من المقترحات هي نتيجة جهد تعاوني عميق لتصور مسار جون إلى الأمام. تعكس كل خطة مدخلات من السكان وأصحاب المصلحة المحليين وقادة المجتمع ، مما يؤدي إلى رؤية مشتركة طموحة وتحترم الهوية الفريدة لمدينتنا. تشمل هذه المقترحات مجموعة شاملة من المبادرات ، من البنية التحتية والتنمية الاقتصادية إلى الحفاظ على الثقافة والإشراف البيئي ، مع تصميم كل مكون لمعالجة نقاط القوة والتحديات والتطلعات المحددة لجون.

تؤكد مقترحاتنا على الالتزام بتحسين البنية التحتية العامة ، والتمكين الاقتصادي ، والاستدامة البيئية ، والاستمرارية الثقافية. من خطط تعزيز المرافق الترفيهية والخدمات المجتمعية إلى مبادرات السياحة المستدامة والطاقة الخضراء ، يهدف كل اقتراح إلى جعل جون نموذجا للتنمية التقدمية والمرتكزة. الهدف النهائي هو إنشاء مجتمع نابض بالحياة وشامل ومرن - مجتمع يجسد قيم وأحلام ومواهب شعبه.

وأعرب عن خالص امتناني لكل من ساهم في هذه الرؤية. لقد كان تفانيك وأفكارك ورؤيتك لا تقدر بثمن ، مما يضيء الطريق إلى مستقبل يتماشى مع القيم الأساسية لجون مع احتضان النمو والابتكار. هذه المقترحات هي دعوة لجميع سكان جون للتخيل والمشاركة والمساعدة في بناء مجتمع ينسق التقاليد مع إمكانيات الغد.

أثناء مراجعتك لهذه المجموعة ، أشجعك على رؤية ليس فقط الخطط ، ولكن رؤية لما يمكن أن يصبح عليه جون. دعونا نمضي قدما معا، ونترجم هذه الأفكار إلى أفعال، ونخلق مستقبلا أكثر إشراقا وازدهارا وموحدا لجون.

مع الاحترام العميق والتفاؤل،

د. انطوان جان البرخش

Digital Transformation of municipalities in Lebanon: For the Municipality of the Town of Joun

Background:

Smart Municipalities

A smart municipality, often referred to as a smart city, leverages technology and data to enhance the quality of life for its residents, improve infrastructure, and promote sustainability. Here are some key aspects of smart municipalities:

- **Technology Integration**: Smart cities use technologies like the Internet of Things (IoT), big data, and artificial intelligence (AI) to collect and analyze data. This helps in efficient management of resources and services12.
- **Sustainability**: These cities focus on reducing carbon footprints through smart energy management, waste reduction, and sustainable transportation options2.
- Citizen Engagement: Platforms for citizen participation allow residents to contribute ideas and feedback, making city management more inclusive and responsive1.
- **Improved Services**: Smart technologies enhance public services such as transportation, healthcare, and education, making them more accessible and efficient2.
- **Economic Growth**: By fostering innovation and improving infrastructure, smart cities can attract businesses and create job opportunities2.

Smart municipalities face several challenges

Smart municipalities face several challenges as they strive to integrate technology and improve urban living. Here are some of the key challenges:

- **Infrastructure**: Developing the necessary physical and IT infrastructure can be costly and complex. Existing infrastructure often needs significant upgrades to support new technologies12.
- **Data Privacy and Security**: With the extensive use of data, ensuring the privacy and security of residents' information is crucial. There are concerns about how data is collected, stored, and used23.
- **Coordination and Collaboration**: Effective collaboration between public and private sectors is essential but can be difficult to achieve. Different stakeholders may have varying priorities and interests23.
- **Political and Regulatory Issues**: Political differences and regulatory hurdles can slow down the implementation of smart city initiatives. Consistent political will and supportive policies are necessary for progress12.

- **Funding**: Securing adequate funding for smart city projects is a major challenge. These projects often require substantial investment, and finding sustainable financial models is critical2.
- **Public Awareness and Engagement**: Educating residents about the benefits of smart city initiatives and encouraging their participation can be challenging. There may be resistance to change or a lack of understanding about the technologies involved2.
- Technical Challenges: Integrating various technologies and ensuring they work seamlessly together can be technically challenging. Interoperability and scalability are key concerns12.

Addressing these challenges requires a strategic approach, involving innovation, collaboration, and a focus on long-term sustainability.

Strategies to ensure the protection of residents' information

Cities can address data privacy concerns through several strategies to ensure the protection of residents' information while leveraging smart technologies. Here are some key approaches:

- **Privacy by Design**: Incorporate privacy considerations into the design and architecture of smart city projects from the outset. This involves embedding privacy features into the technology and processes used1.
- **Data Anonymization**: Implement techniques to anonymize data at the point of collection. This means removing or masking personal identifiers to prevent the identification of individuals1.
- **Clear Privacy Policies**: Develop and communicate clear privacy policies that outline how data is collected, used, stored, and shared. Transparency helps build trust with residents1.
- **Regulatory Compliance**: Ensure compliance with local, national, and international data protection regulations. This includes adhering to laws such as the General Data Protection Regulation (GDPR) in the European Union1.
- **Cybersecurity Measures**: Invest in robust cybersecurity measures to protect data from breaches and unauthorized access. This includes encryption, secure data storage, and regular security audits1.
- **Public Awareness and Engagement**: Educate residents about data privacy practices and involve them in decision-making processes. Public awareness campaigns can help residents understand the benefits and risks associated with smart city technologies1.

- **Partnerships and Collaboration**: Work with technology partners and other stakeholders to establish best practices for data privacy. Collaboration can lead to the development of standardized privacy frameworks1.

By implementing these strategies, cities can effectively address data privacy concerns while continuing to innovate and improve urban living.

Key aspects of smart municipalities

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Lebanon Digital Transformation: OMSAR

Although Lebanon has not yet experienced the Fourth Industrial Revolution because the new technologies transcend our old ones, we must depend on our human capital, which is the main resource that enables our institutions to achieve the efficiency and flexibility that citizens long for. As such, the government has to make a qualitative leap in the services it provides to all citizens so that they could contribute, in turn, to improving the conditions of their country in light of economic incentives, transparent governance, and an open government.

Digital transformation is fundamental for the reform of public services and the prevention of corruptions tools. It is considered at the core of public service reform through ease of use, ease of planning, interconnection of services, and sustainable digital capacities. The most important desired objectives are fundamental institutional reforms. As such, digital transformation presents a unique opportunity to help address these challenges and achieve growth in the digital economy, as many countries of the world are witnessing. Good governance is considered an essential element for achieving sustainable development, community progress and economic prosperity.

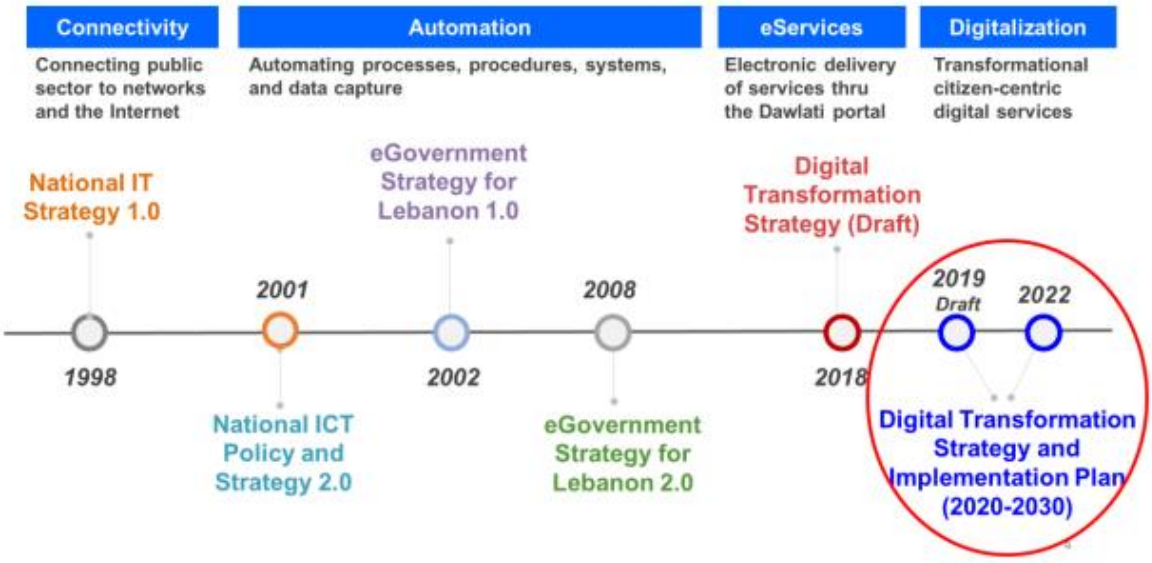


Figure 1. ICT / eGovernment / Digital Transformation Timeline

The Government of Lebanon aims to transform the public sector into a truly high-quality, efficient, and effective provider of services making secure interactions with citizens, civil society organizations, and businesses simple, timely, honest, and transparent by providing citizen-centric services from a common digital platform to enable innovation and to invigorate the entire digital economy of in Lebanon.

The Government of Lebanon is focused on achieving three immediate objectives and outcomes within the first five years:

1. Improve citizens' transactions and their experience with government services by providing comprehensive and effective services and transforming the relationship between citizens and the government, whereby the government places the quality of services and their convenience to citizens as a top priority, starting with the unified digital identity, to better respond to their needs.

2. Enable Lebanon's digital economy and private sector to prosper by participating in the development of the emerging national and regional digital economies and to progressively form a substantial part of the government's own digital supply chain. By simplifying procurement processes that are based on giving priority to national digital goods and services, we aim to make it easier for local entrepreneurs, small and medium enterprises (SME), innovators, and startups, to compete fairly and win government projects and to ensure the continuous development of software and mechanisms.

3. Transform public sector operations through a paradigm shift by embracing digital technology, striving for paperless processes, enabling digital by design operations

based on international standards, and building a framework that delivers transformation across the entire government.

Challenges, Risks, Opportunities, and Success Factors

Challenges	Risks	Opportunities	Success Factors
• Lack of budget • Lack of national vision and clear mandates • Resistance to change • Legacy organizational structure • Weak governance • Lack of digital skills • Outdated laws and regulations • Slow enactment and amendment of laws • No proper coordination to minimize duplication of projects	• Hiring freeze • Political disputes • Over-analyzing programs and projects • Failure to enact effective laws in a timely manner • Inability to attract qualified experts • Misconceptions about digital transformation	• Data analytics • Cybersecurity and cloud computing • New technologies (Blockchain, IoT, Artificial Intelligence) • Digital authentication	• Build on data • Retire legacy systems and introduce common platforms • Set and adopt ICT standards • Build skills and develop talents • Establish a digital center of excellence • Make legislative changes • Set organized investment approaches

Key elements and main recommendations

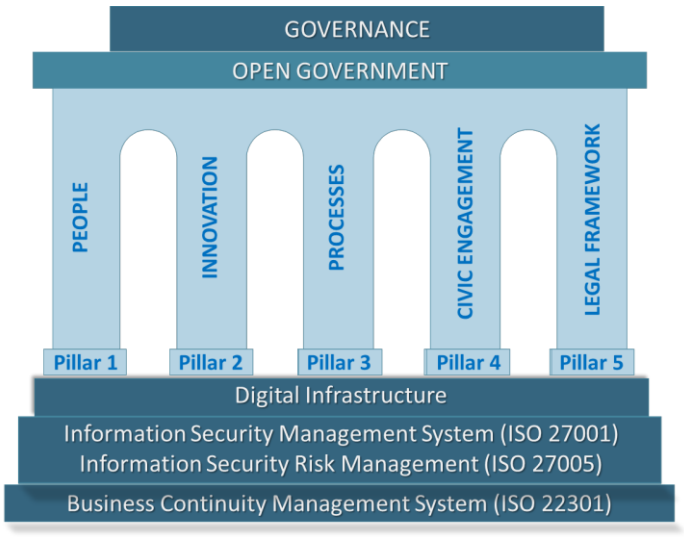
Key Elements	Key Recommendations	Situation in 2022
Governance	Set up a governance structure, standardize platforms, and reduce digital expenditures	The inability to secure the expenses of digital platforms and the minimum components of maintenance and modernization
Digital Strategy	Activate the digital government strategy and give priority to the most important operations with ambitious goals	Rescheduling goals according to the new situation and re-examining priorities in light of new government services and remaining services within the public sector departments, the private sector or agencies as a result of public-private cooperation
Legal and Regulatory Requirements	Decrees of issued laws, promulgation of new laws, and principles of designing digital transformation	Re-arranging priorities and ensuring the implementation of the issued laws and decrees before embarking on legislative inflation.
Digital Skills	Take steps to develop human capital	After the financial collapse, the country is witnessing an alarming migration of skills abroad, including skills from the public and private sectors, as well as the collapse of human capital.
Evaluation and Monitoring	Lay the foundations for performance measurement and accountability to ensure continuous improvement	The collapse disrupts all indicators. Priorities must be rearranged realistically and beyond theoretical ambition, while addressing the constants in the infrastructure and preserving the human element, and then following up to measure performance.
Digital Infrastructure	Unified and secure access to the digital government platform	During the planning and implementation of projects, priorities must be arranged because similar capabilities are not present equally in all departments and ministries to form unified and homogeneous platforms in operation, investment, maintenance and in the level of digitization of information, financial and human resources
Public Communications and Stakeholder Engagement	Involve government, academia, the private sector, NGOs and civil society	During the planning and implementation of projects, priorities must be rearranged according to the material and human capabilities, taking into account the great

Key Elements	Key Recommendations	Situation in 2022
		disparity between the administrations of the public sector, the private sector, the private and public academic and non-governmental sectors, as equality is not possible after the collapse of all levels of partnership
Simplified Operations	Simplify procedures and automate key sectors such as labor, insurance, courts, tax permits, etc.	An administrative, legal, and legislative workshop must be launched to simplify the procedures in a particular administration before starting to automate the current complicated procedures, which are most often outdated and far from being modern. It is also imperative to set priorities according to real capabilities, including financial, human, past and current digital penetration, and the ability to continue to secure investment, maintenance, modernization and sustainable infrastructure in a manner commensurate with reality.
Government Technology Services and Public Digital Platforms	Carry out a comprehensive engineering for the government and all the public sector, launch common services and exchange data securely between the various public sector departments, provided that an implementation framework is established for the dissemination of information and the right of access to it is confirmed.	There are many difficulties in implementing such objectives under the current Lebanese budget structure. The digital transformation project cannot succeed and will not be homogeneous and parallel unless it occurs within a centralized law program (Centralized Law Program or Loi Program Centralisé) in the Office of the Minister of State for Administrative Reform with sub-components in all ministries, but with a single supreme reference capable of establishing a centralized leadership, organizing progress and securing credits from the unified program in parallel for several years, while securing investments, maintenance, and attracting skills for all. Otherwise, it will be impossible to establish secure unified platforms with digital integration and exchange with all systems and software within the digital economy in Lebanon. Any other effort will be in vain if the management of the transformation project is adopted in a decentralized manner and with scattered funds in the budgets of each ministry without a sustainable vision to secure the capabilities for several years.

FOUNDATIONS AND PILLARS

Building strong infrastructural foundations are important anchors for an effective digital transformation. Central to this is (a) developing internal digital capabilities; (b) setting up modern institutions that help us face the opportunities and challenges of the information age; (c) ensuring modern, secure, high availability, affordable communication infrastructures; (d) implementing government operations continuity plans; (e) adopting supportive legal and governance frameworks; (f) improving digital literacy and fostering an open culture of cross- discipline innovations; and (g) developing the right skills, culture, and learning environment focused on outcomes and results for citizens. Lebanon's digital transformation strategy has four important foundations (a) Governance, (b) Open government, (c) Digital Infrastructure and Information Security, and (d) Continuity of Government Operations. On these foundations, five main pillars are anchored (a) People, (b) Innovation, (c) Processes, (d) Civic Engagement, and (e) Legal Framework.

Digital Transformation Pillars



OPEN DATA AND TRANSPARENCY

Transparency in government is about openness and an overriding commitment to release trustworthy information of public interest. The implication of transparency is that all the government's actions should be visible enough to sustain public scrutiny. Therefore, transparency is the bedrock underpinning future agendas for government's reform. Transparency is enabled through three foundation elements. Firstly, Open Information focusing on materials particularly relevant to citizens, businesses, and society. Secondly, Open Process focusing on the publication of how to get things done in government including how decisions are made. Thirdly and most importantly, Open Data, the raw material of the 21st century. Open data include all

kinds of data relevant to any aspect of society and fiscal data to hold government employees accountable. Open Government requires the adaptation of the necessary laws and decrees to assure a solid legal infrastructure.

OPEN DATA PLATFORM @ DATA.GOV.LB

Establish the open data platform and help agencies publish high-quality open datasets to promote transparency in government and enable entrepreneurs to innovate in the co-creation of public services. The open data platform shall adhere to the Protection of Personally Identifiable Information (PII) in Public Clouds (ISO 27018) Standard. The Open Data portal data.gov.lb is currently under development at OMSAR and it shall be administered and managed by the Central Administration of Statistics (CAS).

PERFORMANCE MANAGEMENT

Rooted in the desire to improve government transparency and efficiency, OMSAR was tasked to drive a modern performance management approach across government. This comprehensive performance management program requires the public administration to both measure performance for improvement and use those measurements as a basis for performance budgeting and strategic planning. The lack of vital operational information and financial data are the major challenges faced because these are often inaccessible in silos, scattered, or inconsistent.

A future connected digital government exhibiting seamless secure access to shared data with supportive horizontal cooperation and an embedded culture of transparency will dramatically improve the situation. As we implement digital transformation programs, we will standardize performance data, increase transparency and accountability, produce data-driven insights, evaluate goals, and continuously strive to improve performance over time. These game- changing developments, stimulated by digital transformation, will make true performance management more feasible than ever.

CAPACITY BUILDING

Digitalization is changing the way government functions and delivers services as well as the ways through which citizens and businesses deal and interact with governmental service providers. As the digital transformation journey begins, it is important that no one lacking digital skills and knowledge is left behind. Capacity building is one of the important action areas intended to close the digital divide, connectivity, and access to technology within and between countries (ESCWA, 2017).

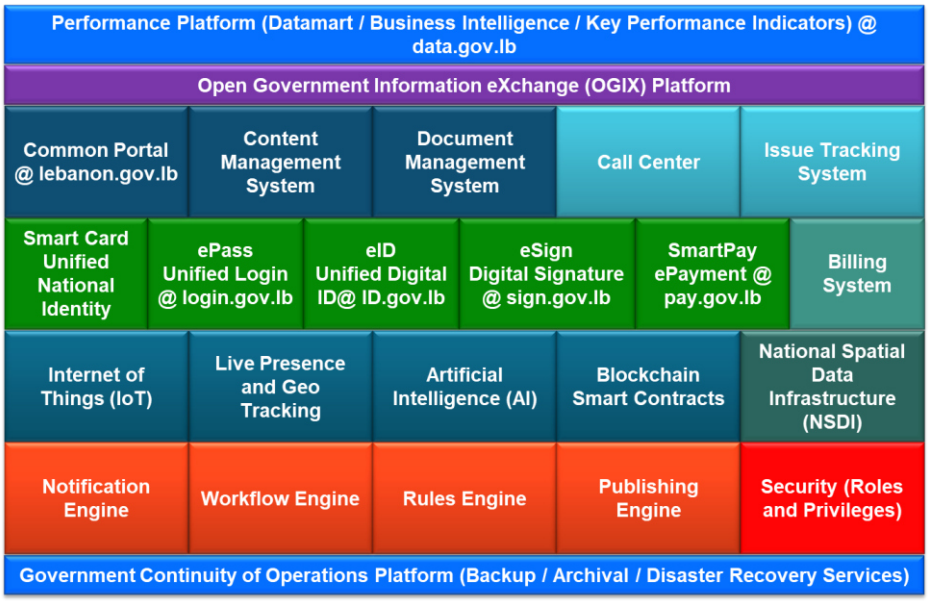
TECHNOLOGY BUILDING BLOCKS

Digital transformation depends greatly on solid technology building blocks, which must be robust, reliable, and scalable. These building blocks are essential to build a strong

platform for digital services, focused mainly on digital-by-design and a citizen-centric user experience.

Interoperability among the building blocks and other existing applications (OMSAR, 2019c).

Digital Transformation Building Blocks



GOVERNMENTAL PROCESS REFORM

Complex, non-transparent, time consuming, and incomprehensible governmental processes result in low quality public services and inefficiencies in the public administration. These inadequate processes cause citizens and businesses unnecessary administrative burdens that cost time and money, undermine the image of the public service, distract managers from the achievements of the results, and give rise to unofficial payments.

DIGITAL TRANSFORMATION PROGRAM

The typical purpose of a digital transformation program is to transform the delivery of identified services from paper-based manual procedures to digital and automated ones. The digital service could reside in a single department, or it might involve several government agencies.

At any given time, there could be several different projects running at various stages of their digital transformation lifecycle within the program.

INTERNATIONAL COLLABORATION

The Office of the Minister of State for Administrative reform will strengthen our existing cooperation with international agencies working in the same field, specifically the World Bank, the United Nations Development Fund (UNDP), the OECD, and the United Nations Economic and Social Commission for Western Asia (ESCWA). International cooperation shall be developed further to benefit from experiences from countries and agencies working on similar projects to encourage the cultural, scientific, technological, and knowledge exchange and ensure the appropriate implementation of this action plan.

COLLABORATION WITH OTHER ARAB STATES

On 17 December 2018, the League of Arab States and Council of Arab Economic Unity (CAEU) issued the first draft of the Joint Arab Strategic Vision for Digital Economy which covers the strategy's framework, its impact on economic growth, job creation, societal welfare, and achievement of the Sustainable Development Goals. This vision lays the corner stone amongst the Arab countries to promote the knowledge-based legislative and technology infrastructure and to support digital transformation in the Arab World (CAEU, 2018). Recommendations include:

1. Provide consultation in the field of digital transformation for systems and transactions through experts and specialists (AFDE, 2019).

2. Encourage drafting laws regulating the digital economy and policies for digital transformation to ensure the inclusion of all Arab countries.

3. Formulate related policies and legislation, governance, and digital skills, and facilitate the amended related laws.

4. Build common Arab information systems among all member states.

5. Launch awareness and training programs to enhance the capabilities of the Arab citizen to deal with advanced digital technologies. On 29 March 2019, the Council of Arab Economic Unity (CAEU) at the League of Arab States signed an agreement with Harvard University to provide technology-based skills analysis and recommendations to enhance Arab governments' digital preparedness and capacities (CAEU, 2019).

6. Establish and launch an Arab Digital Academy.

7. Create guidelines to enable Arab states to assess the digital capabilities of their employees.

8. Establish a joint Arab action to build a competitive digital economy.

LOCAL GOVERNMENT PARTICIPATION

To ensure sustainability and inclusiveness, the digital transformation projects must be

implemented with the widest participation of local governments. Private and public spaces across all Lebanon must host an ecosystem where innovation can take place by fostering participation and collaboration between local governments, its citizens, and businesses. Local skills and contributions will thrive in community centers, innovation hubs, and municipal venues.

PARTNERSHIP WITH PRIVATE SECTOR

The private sector in Lebanon is presented with a great opportunity to partner with the

government and bring the power of digital technologies and services to the citizens, businesses, and the public sector. Digital policymaking must be done by consulting with leaders from the business, civil society, and public sector. Such a collaborative approach will most likely improve accessibility to digital technology for all stakeholders. Digital services shall be co-designed and co-implemented with private sector contributors. By doing so, the GoL will be promoting investment, fostering innovation and entrepreneurship, and maximizing opportunities for success.

E-Transactions and Personal Data Law

Overview

The E-Transactions and Personal Data Law (No. 81 dated 10 October 2018) covers many legal aspects related to service provider certification, electronic commerce, bank cards, digital and electronic payments, network service providers, data hosting, data traffic, domain names, personal data processing, e-signature and proof of signature, crimes and penalties, and registration. This law also establishes the legal guidelines for digital identity and digital signature. The following are the main articles of this law:

1. Electronic Writing and Evidence

2. Electronic Commerce and Contracts, including Electronic Banking and Financial Services

3. Public Communication through Digital Means, i.e. Internet Service Provider liability

4. Country Code Top-Level Domain (ccTLD) for .LB

5. Personal Data Protection

6. Crimes Relating to IT Systems, Data, Bank Cards, and Amendments to the Criminal Law

7. Amendments to Consumer Protection Law No. 659 Dated 4 February 2005

Anti-corruption legal framework

The National Anti-Corruption strategy was developed throughout January 2016 and April 2018. It was submitted to the Council of Ministers in March 2019 and adopted in May 2020.

On 8 May 2020, Law No. 175 on Fighting Corruption in the Public Sector and Establishment of the Anti-Corruption Commission was promulgated by Parliament. The NAAC remained inactive due to lack of member nomination, which impeded the full implementation of other laws, such as Law No. 83 on Whistleblower Protection. On 28 January 2022, the members of the NAAC were appointed by virtue of decree no. 8742.

Public Procurement Law

The Public Procurement Law No. 244 was issued on 19 July 2021, and is one of the laws demanded internationally, especially in the context of negotiations with the International Monetary Fund. The next step is to move forward to e-procurement, which will be discussed below.

NEW LAWS REQUIRED

To achieve the strategic goal and objectives of the digital transformation strategy, the Lebanese Parliament must enact several new laws. It is highly recommended to enact specific laws instead of lumping many laws together. This would make the revision of such laws easier and faster in the future. As a result of reviewing current laws, a gap analysis was performed to identify missing areas that lack laws and regulations. The following is a brief overview of such laws.

E-Procurement Law

A draft proposed law is being prepared by OMSAR to be presented to Members of the

Information Technology Committee of the Lebanese Parliament for allowing e-procurement activities to take place for government tenders.

Digital Government Law

A draft proposal was prepared by several Members of the Lebanese Parliament for the

establishment of a digital government. OMSAR has assessed it and found similarities with related articles mentioned in the E-Transactions and Personal Data Law (Law No. 81/2018).

OMSAR prepared a comparison table between these two texts showing similarities, comments, and suggested measures to be adopted. It is important to avoid any overlaps with existing laws that might create some confusion among the ecosystem of stakeholders, e.g., public and private sector institutions, academia, and civil society (Vasconcelos, 2019).

Data Protection Law

Securing and protecting data against unauthorized access are covered under the E-Transactions and Personal Data Law (Law No. 81/2018), which shall be amended mainly in Chapter 5 – Personal Data Protection (Sehnaoui, 2019).

Anti-Corruption Law

In March 2019, the Minister of State for Administrative Reform submitted a national Anti-Corruption Strategy and Action Plan (ACSAP) to the Council of Ministers of Lebanon for adoption (OMSAR, 2019). Some of the ministers requested a review be conducted to revise some of the language in the ACSAP and a committee was formed to conduct this review and make a recommendation for appropriate changes. The ACSAP was presented to the Council of Ministers on 5 May 2020 and adopted on 12 May 2020.

Digital Transformation is an important enabler to the ACSAP because digitalization of the public sector greatly reduces informal in-person interactions between civil servants and citizens. It is imperative for the Lebanon Digital Transformation Strategy and consequently the Implementation Plan to be adopted so that the ACSAP is successful. These two important initiatives go hand in hand in improving the quality of life and economic prosperity for all Lebanese.

Municipalities in Lebanon face several challenges and weaknesses.

Let's explore some of them:

1. **Financial Strain**: Many municipalities grapple with limited revenue sources, reduced state funding, and rising costs. Balancing budgets while meeting service demands is a constant struggle.

2. **Infrastructure Demands**: Aging infrastructure (such as roads and utilities) requires significant investment. Prioritizing maintenance, upgrades, and new projects can be challenging.

3. **Governance and Accountability**: Ensuring transparency, integrity, and accountability in municipal operations remains a concern. Weak governance structures can lead to inefficiencies and corruption.

4. **Service Delivery**: Providing essential services (like sanitation, education, and healthcare) within budget constraints is an ongoing challenge.

5. **Economic Development**: Balancing economic opportunities with environmental sustainability is critical. Revitalizing small towns and fostering economic resilience require strategic planning.

6. **Ongoing Crises**: Lebanon's compounded crises (including economic collapse, and the Syrian displacement crisis) strain municipal capacity to deliver basic services.

General organizational structures of municipalities in Lebanon

1. Legal Framework and Administrative Organization:

- A municipality in Lebanon has legal personality and is administratively and financially autonomous.
- It operates under the central government's supervision and control, making it an example of administrative decentralization[1].
- The Ministry of Interior and Municipalities (MoIM) oversees municipal matters, including unions of municipalities and individual municipalities[9].

2. Municipal Council:

- The municipal council is the decision-making body within a municipality.
- It has various powers, including legislative and financial authority.
- The council members are elected by the local community.
- The president of the municipal council holds executive authority[1].

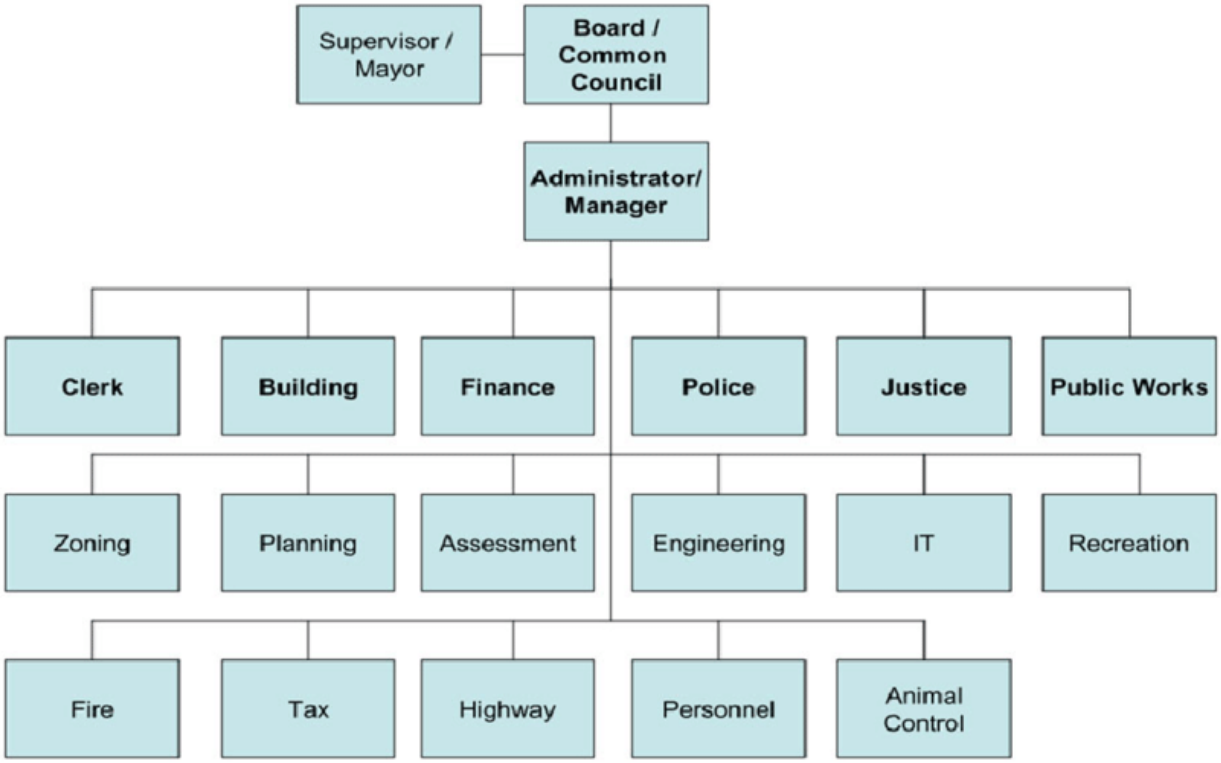
3. Distinct Self-Interests and Autonomy:

- Each municipality serves a specific geographical area.
- It has its own distinct self-interests, financial autonomy, and administrative functions.
- The number of Lebanese municipalities varies[1].

4. Directorate General of Local Administration and Councils (DGLAC):

- The DGLAC, under the MoIM, provides administrative control and oversight for municipalities and unions of municipalities[7].

Typical Municipality Organizational Structure



Municipal Transformation Process

Municipal transformation is a multifaceted process that aims to enhance the effectiveness, efficiency, and responsiveness of local government.

Here are key phases and considerations for successful municipal transformation:

1. Vision and Goal Setting:

- Define a clear vision for the municipality's future. Engage stakeholders to align on shared goals and aspirations.

2. Needs Assessment:

- Understand community needs, challenges, and opportunities. Conduct surveys, focus groups, and data analysis.

3. SWOT Analysis:

- Evaluate the municipality's strengths, weaknesses, opportunities, and threats. Identify areas for improvement.

4. Strategic Planning:

- Develop a strategic plan that outlines priorities, objectives, and action steps. Involve community members and experts.

5. Digital Transformation:

- Leverage technology for efficient service delivery, transparency, and citizen engagement.

- Consider initiatives like e-governance, open data, and digital platforms[1].

6. Public-Private Partnerships (PPPs):

- Collaborate with private sector entities for infrastructure development, service provision, and innovation.

7. Capacity Building:

- Invest in staff training, organizational development, and leadership skills.

- Foster a culture of continuous learning and adaptability.

8. Financial Sustainability:

- Explore revenue diversification, cost-saving measures, and grant opportunities.

- Ensure long-term financial stability.

9. Community Engagement:

- Involve residents in decision-making processes.
- Promote transparency, accountability, and participatory governance.

10. Monitoring and Evaluation:

- Regularly assess progress, adjust strategies, and measure outcomes.
- Use data-driven insights for evidence-based decision-making.

To Note: Successful municipal transformation requires collaboration, adaptability, and a commitment to serving the community effectively.

Phases of Transformation

There are **four** phases of a transformation, each with its own objectives and focus, and each requiring distinct governance and capabilities:

1. Setting and agreeing on the approach
2. Launching the transformation
3. Steady state of transformation delivery
4. Program wind down and continuous improvement

Let's delve deeper into each phase:

Setting and Agreeing On the Approach (Year 0):

- Why and why now? This critical question drives the transformation's purpose. Securing funding necessitates a compelling case that demonstrates the investment's worth. The proposed change should be transformative, addressing multiple aspects of the operating model.
- Articulating the approach: Define the overarching objective, desired future state, key focus areas, transformation mechanism, critical dependencies (e.g., technology implementation), and milestones.

Launching The Transformation (Year 1):

- **What is this and what does it mean for me?** Communicate the news to department colleagues, going beyond updates. Use relationships and influence to engage them, align with the change, and prepare them to contribute.
- **Championing the change**: Appoint someone within the Municipality to champion the proposed change, emphasizing its impacts and benefits. Involve staff in shaping the new culture and engage external stakeholders in service redesign.
- **Transformation Lead**: Appoint a skilled Transformation Lead responsible for program execution, reporting, and stakeholder engagement.
- **External delivery partners**: Explore partnerships to enhance capability and capacity for implementing changes.
-

Steady State of Transformation Delivery (Years 2-5):

- **Is this working, and if not, how can we make it work?** Monitor performance, maintain momentum, and address roadblocks. Swift decision-making and risk mitigation are crucial.

Program Wind Down and Continuous Improvement (Year 6):

- **What did you achieve and how will we sustain the change?** Evaluate outcomes and quantify benefits. Focus on sustaining the new operating model.

The Importance of Oversight:

Establishing robust capability and oversight mechanisms is crucial for sustaining the benefits of transformation. Let's delve deeper into these aspects:

Continuous Improvement Lead and Mayor Accountability:

- **Formal Reporting**: Designate a continuous improvement lead who will monitor progress and ensure that the transformation's benefits continue to accrue. Regular reporting mechanisms should be established to track outcomes, identify areas for improvement, and address any setbacks.
- **Mayor's Role**: The Mayor, as a key stakeholder, plays a pivotal role in overseeing the transformation. Their accountability extends beyond the initial implementation phase. They should champion the change, advocate for its success, and actively engage with stakeholders.

Complexity and Challenges:

- **Inevitable Challenges**: Transformation initiatives are rarely straightforward. Challenges may arise due to organizational dynamics, resistance to change, resource constraints, or unforeseen obstacles.
- **Essential Nature**: Despite the complexities, transformation is essential. Here's why:
- **Improved Services**: Residents benefit from better services, streamlined processes, and enhanced quality of life.
- **Efficiency**: Mayors achieve greater efficiency by optimizing resources, reducing waste, and maximizing impact.
- **Colleague Impact**: Colleagues work in an environment that empowers them to make a meaningful difference.

Staying Focused:

- **Purpose Reminder**: When faced with frustrations or setbacks, revisit the core reason for undertaking the transformation. Keep the purpose at the forefront—whether it's enhancing citizen well-being, economic resilience, or sustainable practices.
- **Collective Effort**: Remember that successful transformation is a collective effort. Engage stakeholders, maintain transparency, and celebrate small victories along the way.

What is Strategic Planning?

Strategic planning is a crucial process through which an organization defines its direction, allocates resources, and sets goals to achieve its desired future. For municipalities, strategic planning involves developing strategies, objectives, and action plans to address current challenges and shape the community's path forward. It serves as a roadmap, guiding decision-making and resource allocation.

In the case of small towns like Joun, strategic planning takes on a unique character due to factors such as close-knit communities, limited resources, and a strong emphasis on quality of life.

VISION, MISSION & VALUES

Let's explore the key components of Joun's five-year strategic plan:

VISION

Joun envisions itself as a ***social harmony town*** in Lebanon, characterized by an active lifestyle appeal. The town aims to foster a vibrant, growing community where safety, inclusivity, and innovation thrive.

MISSION

The Joun Town Council and Administration are committed to creating and sustaining a community that residents and businesses proudly support. Their mission includes:

- **Preserving Social Harmony**: Joun will protect its peaceful atmosphere, emphasizing wide open spaces and a sense of community.
- **Promoting an Active Lifestyle**: The town will provide recreation facilities, cultural opportunities, and amenities to meet residents' physical and mental needs.
- **Fostering Growth**: Joun will attract residential development, businesses, and partnerships through sustainable, innovative planning.

VALUES

These values reflect the town's commitment to excellence, responsibility, innovation, engagement, inclusiveness, and collaboration.

Let's explore each value in more detail:

Excellence:

- Joun aims to set a high standard by implementing best practices and delivering top-quality services.
- By being a model of excellence, Joun inspires other Lebanese municipalities to follow suit.

Responsibility:

- Transparency and ethical conduct guide Joun's interactions with residents.
- Financial decisions consider the long-term fiscal health of the town.

Innovation:

- Joun embraces a culture of learning and welcomes fresh ideas.
- Continuous improvement drives the town toward a forward-thinking future.

Engagement:

- Joun actively involves residents in decision-making processes.

- Transparent communication encourages citizen participation and community involvement.

Inclusiveness:

- Joun treats all residents with equality and respect.
- The town sets an example of inclusion, fostering a positive community spirit.

Collaboration:

- Joun values teamwork and prioritizes a safe and healthy workplace.
- Engaging stakeholders and collaborating with regional and international partners enhance planning and communication.

These values form the foundation for Joun's strategic direction, ensuring a vibrant and thriving community.

Six Strategic GOALS and Nine areas of focus

Let us delve into each of the six strategic goals:

1-Diverse, Inclusive & Engaged Community:

- Joun aims to engage residents inclusively, recognizing that diverse feedback is essential for effective policy and infrastructure development.
- Priorities include youth participation, cultural programming, community group support, and volunteerism.
- Improved communication through technology (Town Website and mobile Application) will enhance transparency and decision-making.

2-Active & Healthy Community:

- Joun prioritizes supporting active and healthy lifestyles for all residents.
- Expanding recreation programs caters to various age groups and abilities, promoting physical and mental well-being.
- Creation of a Recreation Master Plan to guide the development of facilities and resources within Joun.

3-Innovative Development:

- As Joun grows, the Municipal Council seeks intelligent and innovative long-term planning.
- Sustainable development will foster community and local economic growth.
- Balancing growth with the ***Social Harmony Town Feel*** is a key consideration.

- By promoting sustainable development that will help grow our local community and local economy, the Council strives to meet the vision of the municipality and retain the ***Social Harmony Town Feel*** while supporting the development of a *Town Recreation Area or Centre*, that encourages aging-in-place, and environmentally friendly developments.

These strategic goals reflect Joun's commitment to community well-being, sustainability, and forward-thinking development.

4-Safe & Caring Community

- Joun prioritizes safety and well-being for residents, businesses, and visitors.
- Initiatives include establishing a Joun Fire Department (if feasible), creating an Emergency Measures Organization, and forming community neighborhood safety groups.
- These efforts foster a sense of security and care throughout the town.

5-Regional Collaboration

- Joun recognizes the strength of collaboration with neighboring municipalities.
- Working together ensures sustainable regional growth, efficient infrastructure, and shared services.
- Regional planning and cooperation enhance overall development.

6-Governance and Operational Excellence

Joun invests internally to enhance municipal service delivery.

- Digitization of procedures were needed.
- As population expectations grow, the Council focuses on individual and team growth.
- High-quality service and expertise to be central to governance and operations.

Areas of Focus

GROW THE TOWN ECONOMY

MUNICIPAL PROPERTY DEVELOPMENT:

Key Performance Indicators:

- Identify municipal properties for sale or development.
- Assess feasibility for creating public and neighborhoods parks or gardens.
- Understand community needs and immediate opportunities.
- Identify potential developers and establish partnerships.

- Pursue funding options for property development.
- Develop a land purchasing policy or strategy.

These strategic goals and areas of focus demonstrate Joun's commitment to community well-being, collaboration, and sustainable growth.

Renewable Energy:

- Key Performance Indicator:
- Consider opportunities to invest in renewable energies.
- Joun can explore solar, wind, or other sustainable energy sources to reduce its environmental impact.

Operate Efficiently and Enhancing Transparency

Develop an Employee Retention Program:

- Key Performance Indicators:
- Conduct a comprehensive organizational review.
- Evaluate and modernize benefit programs.
- Introduce innovative HR policies that prioritize work-life balance, mental health, support, training, and succession planning.

Transparency:

- Key Performance Indicators:
- Establish a robust social media presence to keep residents informed about municipal matters.
- Publish all publicly available municipal documents for transparency.
- Launch an education campaign to highlight the Municipality's role and contributions.

Service Excellence and Good Governance

The strategic goals related to service excellence and good governance for Joun:

Manage Programs, Services, Assets, and Amenities While Meeting Accessibility Standards:

- Actions:
    - Be Future Focused, Agile, and Innovative:
- Joun aims to stay ahead by anticipating future needs, being adaptable, and fostering innovation.
    - Develop a Comprehensive Marketing and Communications Plan:

- Effective communication ensures residents are informed and engaged.
    - Conduct Municipal Services Delivery Reviews:
- Regular assessments ensure efficient and effective service delivery.

Implementation and Tracking

Implementation is a crucial step in turning strategic plans into actionable results.

Let's break down the process and explore how to effectively execute and track your strategic plan for the Municipality:

Understanding the Process:

- **Strategic Plan**: Defines the "what" and "why" of activities, outlining the overall vision, goals, and objectives.
- **Implementation**: Addresses the "who," "where," "when," and "how" of executing the plan.

Creating a Planning Calendar:

- Develop a detailed calendar that outlines key milestones, deadlines, and activities.
- Ensure alignment with the strategic plan's timeline.
- Consider resource availability and constraints.

Assigning Responsibilities:

- Communicate the strategy to all stakeholders within the Municipality.
- Involve staff in the plan's development to foster ownership.
- Assign clear goals to staff members, leveraging their strengths.

Action Items and Accountability:

- Staff should create specific action items related to their assigned goals.
- Hold staff accountable for achieving these goals.
- Regularly review progress and adjust as needed.

Adaptability and Corrective Action:

- If something isn't working, be open to change.
- Take corrective action promptly or build on successful strategies.
- Use strategy-focused meetings to discuss adjustments.

Linking Strategy to Performance:

- Tie strategic goals to measurable performance indicators.

- Regularly assess progress against these indicators.

Self-Assessment and Celebration:

- Encourage ongoing self-assessment.
- Celebrate achievements when goals are reached.

Regular Strategy Reviews:

- Conduct frequent strategy meetings.
- Review progress, address challenges, and ensure alignment.
- Keep the strategic plan on track.

To note: regular strategy meetings are essential for maintaining control over the Municipality's strategic efforts. By tracking progress, adjusting as needed, and involving all stakeholders, the Municipality can turn strategy into a habit and achieve its goals effectively.

Municipal Digital Transformation:

About Municipal Digital Transformation:

Government digital transformation is fundamentally changing processes and services by adopting and integrating new technology.

Municipal Digital Transformation refers to the process by which local governments and municipalities leverage technology and data-driven approaches to enhance their services, improve efficiency, and engage with residents.

Benefits of Transparency in a municipality

Transparency in a municipality offers several significant benefits:

1. Trust and Accountability:

When citizens have access to information about government activities, they trust the system more. Transparency fosters accountability among public officials, ensuring they act in the best interest of the community.

2. Informed Decision-Making:

Transparent data allows citizens to make informed decisions. Whether it's voting, participating in public consultations, or understanding policy implications, access to information empowers residents.

3. Efficient Resource Allocation:

Transparent budgeting and spending help allocate resources effectively. Citizens can see where tax dollars go, ensuring funds are used efficiently for essential services like infrastructure, education, and healthcare.

4. Public Participation:

Transparency encourages citizen engagement. Open meetings, accessible records, and public consultations enable residents to voice opinions, propose ideas, and actively participate in municipal affairs.

5.Economic Development:

Transparent processes attract investment. Businesses and investors prefer municipalities with clear regulations, predictable policies, and accountable governance.

Tools for establishing transparency in a municipality:

Open Budgets:

Publish detailed budgets that clearly explain how public funds are allocated and spent. Transparency in financial matters raises public trust[2].

Public Disclosures:

High-ranking government officials should disclose their financial assets, conflicts of interest, and other relevant information. This fosters accountability and transparency[2].

Public Meetings and Hearings:

Regularly conduct town hall meetings and maintain meeting minutes. Engage with citizens to discuss policies, projects, and decisions[3].

Online Portals and Databases:

Create user-friendly online platforms where citizens can access public records, documentation, and services. Make information easily accessible[2].

Open Data Initiatives:

Provide data in an easily digestible format. Citizens want to know where their tax dollars go and how well the city is performing[1].

Transforming Joun Municipality into an e-Municipality

An e-municipality refers to the use of digital technology and online platforms to enhance local governance and service delivery within a municipality.

An e-Municipality aims to offer quality-service and local democracy by establishing interactive communication and information exchange between the municipality and local society

Here are some key points:

1. Definition:

- An e-municipality leverages information and communication technologies (ICTs) to improve administrative processes, citizen engagement, and public services.

- It encompasses various digital initiatives, such as e-governance, online service portals, and smart city solutions.

2. Components:

- E-Governance: Digitalizing administrative functions, including online applications, permits, and payments.

- Citizen Portals: Providing residents with access to municipal services, information, and communication channels.

- Smart Infrastructure: Implementing technology for efficient utilities, transportation, and waste management.

3. Benefits:

- Efficiency: Streamlines processes, reduces paperwork, and enhances service delivery.

- Transparency: Allows citizens to track projects, budgets, and decisions.

- Participation: Encourages citizen engagement and feedback.

To Note: In Lebanese towns e-municipalities strategies should be based on local needs and resources.

Transparency in Lebanon:

Lebanon has made strides in promoting transparency and open data.

Here are two relevant initiatives:

1. Impact Open Data: This platform, developed by the Central Inspection in Lebanon, provides access to data collected from various ministries and municipalities. It aims to enhance transparency, accountability, and citizen engagement.
2. Access to Information Law (ATI Law): Lebanon's ATI Law (no. 28/2018) grants every natural or legal person the right to access and view information and documents held by public entities without abusing this right.

Concept Note for A Town of Joun Website

Goal of The Town of Joun Website

The goal of the **Town of Joun Website** is to provide simple and intuitive electronic access to public services, serve as a public communications tool, reduce transaction costs for the Town and citizens, and to streamline business operation. Specifically, the Town would like the site to support e-government transactions such as on-line permits, on-line forms and applications, on-line payments, and a variety of other activities in the near future.

PURPOSE

The **Town of Joun Website** should provide easy access to Town services, be adaptable to current and changing technology, provide content management for Town Staff and be used as a public communications tool.

Website Criteria:

The website should meet the following criteria:

- Provide easy electronic access to public information for use by the target audience.
- Provide the public with an alternative means of communicating with Town officials and staff.
- Provide enhanced delivery and awareness of Town services and facilitate a process for public inquiry.
- A build-to-suit website and long term external hosting, but not a month-to-month content management relationship
- Provide a 24-hour "Joun Town Hall", and the eventual ability to conduct secure financial transactions online.
- Provide pages for all major Town programs, departments, services, and functions.
- Be upgradeable.

Target Groups:

The information on **Town of Joun Website** should be directed towards the following groups (listed in priority order):

- Joun community members (Jounis)
- Businesses
- Visitors
- Prospective businesses
- Prospective residents
- Prospective investors and developers
- Civic groups
- Associations
- Youth and other groups
- Other Lebanese government agencies
- Any person or agency seeking to conduct business with, or obtain information about, the Town of Joun.

In Summary:

The Town of Joun seeks to create an inviting website that is attractive and reflective of Joun, with imagery that reflects the Town as an attractive place to live, work, and visit.

The newly designed website will be used as an informational and marketing tool for residents, business and visitors using the site.

The design should highlight and showcase the community, Town amenities, news, events and attractions, and the multitude of services available to its community members (Jounis).

Concept Note for A Town Mobile App:

Benefits of a mobile municipality app

The **mobile** municipality **app** for the town of Joun shall offer several benefits, enhancing communication, engagement, and services for both Joun residents and Joun municipality.

Here are some advantages:

24/7 Accessibility:

- Joun residents can access information, services, and updates anytime, anywhere using their smartphones.

- Emergency alerts, service requests, and event notifications are readily available.

Efficient Service Delivery:

- Mobile apps streamline processes such as **permit applications**, **bill payments**, and **service requests**.
- Faster response times lead to improved resident satisfaction.

Transparency and Trust:

- The App shall provide transparency by sharing information on Joun municipality budgets, projects, and decisions.
- Joun residents gain trust in Joun municipality governance through open communication.

Joun Community Engagement:

- The App shall facilitate Joun community engagement by allowing residents to participate in surveys, polls, and discussions.
- Feedback mechanisms help Joun municipality officials understand public sentiment.

Cost-Effective Communication:

- Apps reduce the need for physical mailings, phone calls, and in-person visits.
- Cost savings benefit both the municipality and residents.

Customization and Personalization:

- The App shall be tailored to specific municipal services, events, and attractions.
- Joun residents can receive relevant content based on their preferences.

Promotion and Tourism:

- The App shall showcase attractions in Joun, events, and businesses.
- Tourists and visitors can explore the town through the app.

Emergency Preparedness:

- The App shall provide real-time alerts during emergencies (e.g., fires, power failures issues, natural disasters).
- Residents can stay informed and can take necessary precautions.

Data Analytics and Insights:

- The App could collect data on user behavior, preferences, and service usage.
- Joun municipality officials can make informed decisions based on analytics.

Branding and Identity:

- The App should be well-designed to reflect the municipality's brand and identity.
- It shall reinforce Joun's uniqueness and promotes civic pride.

In summary, Joun mobile app shall serve as a powerful tool for the Municipality to engage Joun residents, improve services, and create a sense of community ownership.

ABOUT Public-private Partnerships (PPP)

Public-private partnerships (PPPs) are collaborative arrangements between government entities and private sector organizations to deliver public services or infrastructure projects.

Here are some common PPP contract types and terminology:

1. **Build – Operate – Transfer (BOT):** In this model, the private party builds and operates the asset for a specified period before transferring it back to the government.

2. **Build – Own – Operate – Transfer (BOOT)**: Similar to BOT, but the private party retains ownership during the contract term.

3. **Build – Own – Operate (BOO)**: The private party builds and operates the asset without transferring ownership.

4. **Design-Build:** The private party is responsible for both designing and constructing the asset.

5. **Design-Build – Finance**: In addition to design and construction, the private party provides financing.

6. **Design-Build – Finance – Operate (DBFO):** Includes design, construction, financing, and operation.

7. Design-Build – Finance – Maintain – Operate (DBMFO): Extends DBFO to include maintenance.

8. **Design – Construct – Maintain – Finance (DCMF):** Covers design, construction, maintenance, and financing.

9. **Operation & Maintenance (O&M) :** The private party handles asset operation and maintenance.

10. **Buy-Build-Operate (BBO):** Involves purchasing an existing asset, upgrading it, and operating it.

11. **Operating License**: The private party operates the asset under a license.

Successful Strategies for Change Management in Local Government

Implementing change in local government can be challenging, but several strategies have proven successful in facilitating smooth transitions and achieving desired outcomes. Here are some key strategies:

1. Engage Stakeholders Early and Often

- Involve Key Players: Engage with internal and external stakeholders from the beginning to ensure their buy-in and support1.
- Regular Communication: Maintain open lines of communication to keep everyone informed about the progress and benefits of the change[2].

2. Develop a Clear Vision and Roadmap

- Set Clear Goals: Define the objectives and desired outcomes of the change initiative3.
- Create a Roadmap: Develop a detailed plan that outlines the steps, timelines, and responsibilities for implementing the change3.

3. Provide Training and Support

- Training Programs: Offer comprehensive training to ensure that staff are equipped with the necessary skills and knowledge to adapt to the new processes1.
- Ongoing Support: Establish support structures, such as help desks or dedicated teams, to assist staff during the transition[2].

4. Foster a Positive Organizational Culture

- Encourage Collaboration: Promote a culture of collaboration and teamwork to facilitate the adoption of new practices1.
- Recognize and Reward: Acknowledge and reward employees who contribute positively to the change process[2].

5. Monitor and Evaluate Progress

- Set Metrics: Establish key performance indicators (KPIs) to measure the success of the change initiative1.
- Regular Reviews: Conduct regular reviews to assess progress and make necessary adjustments to the plan[1].

6. Leadership Alignment

- Unified Leadership: Ensure that all leaders are aligned with the vision and actively support the change2.
- Lead by Example: Leaders should model the desired behaviors and practices to inspire others2.

By following these strategies, local governments can effectively manage change, leading to improved efficiency, transparency, and constituent satisfaction[312].

Role of Information Technology in Municipal Governments Capacity Building

Information technology (IT) plays a crucial role in modernizing municipal operations and enhancing service delivery. Here are some key areas where IT is making a significant impact in municipalities:

1. Smart City Initiatives

- Smart Technologies: Municipalities are using smart technologies to improve quality of life. This includes real-time data collection through sensors and smartphones to manage traffic, public safety, and environmental monitoring1.
- Data-Driven Decision Making: Enhanced data analytics help city leaders make informed decisions, improving efficiency and responsiveness[1].

2. E-Government Services

- Online Services: Many municipalities offer online services such as permit applications, utility payments, and public records requests, making it easier for residents to access services2.

- Digital Communication: Internal and external email systems, government websites, and social media platforms facilitate better communication and engagement with constituents[2].

3. Automated Systems

- Meter Readings and Billing: Automated meter readings and online utility billing systems streamline operations and improve accuracy2.
- Workflow Automation: Automated workflows for tasks like permit processing and inspections reduce manual work and enhance efficiency2.

4. Public Safety and Emergency Management

- Crime Tracking: IT systems help track crime trends and allocate resources more effectively2.
- Emergency Alerts: Real-time alerts and communication systems improve emergency response and public safety1.

5. Infrastructure Management

- Asset Management: IT solutions help municipalities manage and maintain infrastructure assets, such as roads, bridges, and public buildings1.
- Predictive Maintenance: Data analytics and IoT devices enable predictive maintenance, reducing downtime and repair costs1.

6. Community Engagement

- Mobile Apps: Municipalities use mobile apps to engage with residents, allowing them to report issues, access services, and receive updates1.
- Social Media: Platforms like Facebook and Twitter are used to communicate with residents and gather feedback1.

Challenges of Implementing workflow automation in municipalities

Implementing workflow automation in municipalities can bring significant benefits, but it also comes with its own set of challenges. Here are some common ones and how to address them:

1. Resistance to Change

- **Challenge**: Employees may be hesitant to adopt new ways of working, fearing that automation will threaten their jobs1.

- **Solution**: Invest in comprehensive training programs and foster engagement by clearly communicating the benefits of automation, such as reduced workload and improved efficiency[2].

2. Integration Complexities

- **Challenge**: Integrating automation tools with existing systems can be complex and time-consuming1.
- **Solution**: Conduct a thorough assessment of your current systems and choose automation tools that offer seamless integration capabilities. Working with experienced vendors can also help mitigate integration issues3.

3. Security Concerns

- **Challenge**: Ensuring the security of automated workflows and protecting sensitive data can be challenging1.
- **Solution**: Implement robust security measures, such as encryption and access controls, and regularly update your systems to protect against vulnerabilities1.

4. Scalability Issues

- **Challenge**: Some automation solutions may not scale well as your municipality grows1.
- **Solution**: Choose scalable solutions that can grow with your needs and ensure that your infrastructure can support increased automation1.

5. Lack of Analytics and Insights

- **Challenge**: Without proper analytics, it can be difficult to measure the effectiveness of automated workflows1.
- **Solution**: Implement tools that provide detailed reporting and analytics to monitor performance and identify areas for improvement1.

6. Process Standardization

- **Challenge**: Automating poorly defined or inconsistent processes can lead to inefficiencies3.
- **Solution**: Standardize and document your processes before automating them. This ensures that the automation is applied consistently and effectively3.

7. Change Management

- **Challenge**: Managing the transition to automated workflows can be difficult, especially if there is a lack of buy-in from stakeholders[2].
- **Solution**: Develop a change management plan that includes stakeholder engagement, clear communication, and support throughout the transition[2].

8. Budget Constraints

- **Challenge**: Limited budgets can restrict the implementation of comprehensive automation solutions3.
- **Solution**: Prioritize automation projects based on their potential impact and return on investment. Start with smaller, high-impact projects and gradually expand as resources allow3.

By anticipating these challenges and planning accordingly, your municipality can successfully implement workflow automation and reap its many benefits[312].

Addressing resistance to change

Addressing resistance to change among staff during a technology implementation is crucial for a smooth transition. Here are some effective strategies:

1. Engage Employees Early

- **Involve Staff in Planning**: Include employees in the decision-making process from the beginning. This helps them feel valued and reduces resistance1.
- **Seek Feedback**: Regularly ask for and incorporate feedback from staff to ensure their concerns are addressed2.

2. Communicate Transparently

- **Clear Communication**: Provide clear and consistent information about the changes, including the reasons behind them and the benefits they will bring1.
- **Frequent Updates**: Keep everyone informed about the progress and any adjustments to the plan1.

3. Provide Training and Support

- **Comprehensive Training**: Offer thorough training sessions to help staff understand and become comfortable with the new technology1.
- **Ongoing Support**: Establish a support system, such as help desks or dedicated teams, to assist employees during the transition1.

4. Build a Coalition of Change Champions

- **Identify Champions**: Select influential employees who support the change to act as advocates and help mitigate resistance within their teams1.
- **Empower Champions**: Provide these champions with the resources and authority they need to support their colleagues1.

5. Address Technophobia

- **Acknowledge Fears**: Recognize that some employees may have a fear of new technology (technophobia) and address these concerns empathetically3.
- **Promote a Learning Culture:** Encourage continuous learning and adaptability to help staff feel more comfortable with technological changes3.

6. Highlight Benefits and Quick Wins

- **Showcase Benefits**: Clearly articulate the benefits of the new technology, such as increased efficiency and reduced workload1.
- **Quick Wins**: Identify and celebrate early successes to build momentum and demonstrate the positive impact of the change1.

7. Monitor and Adjust

- **Track Progress**: Regularly monitor the implementation process and gather feedback to identify any issues or areas for improvement1.
- **Be Flexible:** Be willing to adjust the plan based on feedback and changing circumstances1.
-
- By following these strategies, you can effectively address resistance to change and ensure a smoother technology implementation in your municipality123.

Benefits of Technology-based records management

Technology-based records management offers numerous benefits for municipalities. Here are some key advantages:

1. Improved Efficiency

- **Automated Workflows**: Streamline processes such as permit applications, inspections, and public records requests, reducing the time and effort required for manual tasks[1].
- **Quick Access:** Digital records can be accessed quickly and easily, saving time spent searching through physical files1.

2. Enhanced Security

- **Data Backups**: Regular backups ensure that records are protected against data loss due to cyberattacks, natural disasters, or other emergencies[1].
- **Access Controls**: Implementing robust access controls helps protect sensitive information and ensures that only authorized personnel can access certain records[2].

3. Cost Savings

- **Reduced Physical Storage**: Digital records eliminate the need for extensive physical storage space, reducing costs associated with maintaining and securing physical files[1].
- **Lower Administrative Costs**: Automation reduces the need for manual data entry and processing, leading to lower administrative costs[2].

4. Better Compliance

- **Regulatory Compliance**: Automated retention schedules and audit trails help ensure compliance with legal and regulatory requirements[2].
- **Transparency**: Digital records management promotes transparency by making it easier to track and report on municipal activities2.

5. Enhanced Collaboration

- **Shared Access:** Digital records can be accessed by multiple users simultaneously, facilitating collaboration across departments2.
- **Remote Access**: Cloud-based solutions allow staff to access records from anywhere, improving flexibility and responsiveness1.

6. Improved Constituent Services

- **Online Services**: Residents can access services such as permit applications and public records requests online, improving convenience and satisfaction[1].
- **Faster Response Times**: Automated workflows and quick access to digital records enable faster response times to constituent inquiries and requests[2].

By adopting technology-based records management, municipalities can achieve significant improvements in efficiency, security, cost savings, compliance, collaboration, and constituent services[12].

Convincing staff to transition from paper-based records to digital systems

Convincing your team to transition from paper-based records to digital systems involves addressing their concerns and highlighting the benefits.

Here are some strategies to help you make a compelling case:

1. Highlight the Benefits

- **Efficiency**: Explain how digital systems streamline processes, reduce manual tasks, and save time. For example, automated workflows can handle repetitive tasks, allowing staff to focus on more strategic activities1.
- **Cost Savings**: Emphasize the cost savings from reduced physical storage needs and lower administrative costs2.
- **Accessibility**: Digital records can be accessed quickly and easily from anywhere, improving flexibility and responsiveness2.
- **Security:** Digital systems offer enhanced security features, such as data backups and access controls, to protect sensitive information2.

2. Address Concerns and Misconceptions

- **Job Security**: Reassure staff that the goal is to enhance their work, not replace them. Automation can reduce mundane tasks, allowing them to focus on more meaningful work3.
- **Ease of Use**: Demonstrate that digital systems are user-friendly and provide training to ensure everyone is comfortable with the new technology[3].

3. Provide Training and Support

- **Comprehensive Training:** Offer thorough training sessions to help staff understand and become comfortable with the new system3.
- **Ongoing Support:** Establish a support system, such as help desks or dedicated teams, to assist employees during the transition3.

4. Showcase Success Stories

- **Real-World Examples**: Share examples of other municipalities that have successfully transitioned to digital systems and the benefits they have experienced[1].
- **Quick Wins**: Identify and celebrate early successes to build momentum and demonstrate the positive impact of the change3.

5. Engage and Involve Staff

- **Involve Key Players**: Include employees in the planning and decision-making process to ensure their buy-in and support3.
- **Seek Feedback**: Regularly ask for and incorporate feedback from staff to address their concerns and improve the transition process[3].

6. Communicate Transparently

- **Clear Communication**: Provide clear and consistent information about the changes, including the reasons behind them and the benefits they will bring[3].
- **Frequent Updates**: Keep everyone informed about the progress and any adjustments to the plan3.

By following these strategies, you can effectively address resistance to change and ensure a smoother transition to digital systems in your municipality[123].

Steps of Implementing automated workflows in a municipality

Implementing automated workflows in your municipality can significantly enhance efficiency, transparency, and constituent satisfaction. Here are some steps to get you started:

1. Assess Current Processes

- **Identify Manual Tasks**: Conduct an audit of your current processes to identify tasks that are repetitive, time-consuming, and prone to errors[1].
- **Prioritize**: Determine which processes would benefit most from automation based on their impact and frequency1.

2. Define Objectives and Goals

- **Set Clear Goals**: Define what you aim to achieve with automation, such as reducing processing times, improving accuracy, or enhancing constituent services[2].
- **Establish Metrics:** Identify key performance indicators (KPIs) to measure the success of your automation efforts2.

3. Choose the Right Software

- **Research Options**: Look into various records management and workflow automation software solutions that fit your municipality's needs[3].

- **Request Demos**: Arrange for product demonstrations to see how different solutions work in practice3.
- **Evaluate Features**: Ensure the software includes essential features like digital forms, automated workflows, GIS mapping, and reporting tools[3].

4. Involve Stakeholders

- **Form a Team**: Include representatives from various departments such as IT, legal, finance, and public works to ensure all perspectives are considered[2].
- **Gather Feedback**: Engage with staff to understand their needs and concerns regarding automation2.

5. Develop a Plan

- **Create a Roadmap:** Develop a detailed implementation plan with timelines, milestones, and responsibilities2.
- **Pilot Program:** Start with a pilot program to test the automation in a controlled environment before full-scale implementation2.

6. Train Staff

- **Provide Training**: Ensure that all relevant staff members are trained on the new system and understand how to use it effectively[2].
- **Offer Support:** Set up a support system to assist staff during the transition period2.

7. Monitor and Optimize

- **Track Progress:** Use the established KPIs to monitor the performance of the automated workflows2.
- **Gather Feedback:** Continuously gather feedback from staff and constituents to identify areas for improvement2.
- **Optimize**: Make necessary adjustments to optimize the workflows and address any issues that arise2.

By following these steps, your municipality can successfully implement automated workflows, leading to more efficient operations and better service delivery to your constituents[123].

Key Definitions Related to Software Functions, Particularly in The Context of Records Management Software:

Here are some key definitions related to software functions, particularly in the context of records management software:

Key Software Functions

Digital Forms:

- **Definition**: Electronic versions of paper forms that can be filled out and submitted online.
- **Purpose**: Streamline data collection and reduce manual entry errors.

Automated Workflows:

- **Definition**: Predefined sequences of tasks that are automatically triggered by specific events or conditions.
- **Purpose**: Increase efficiency by automating repetitive tasks and ensuring consistent processes.

GIS Mapping:

- **Definition**: Geographic Information System (GIS) technology that allows for the visualization and analysis of spatial data.
- **Purpose**: Enhance planning and decision-making by providing a visual representation of data.

Property Profiles:

- **Definition**: Comprehensive records that include all relevant information about a property, such as ownership, zoning, and permits.
- **Purpose**: Centralize property-related data for easy access and management.

Task Assignment and Project Tracking:

- **Definition**: Tools for assigning tasks to team members and tracking the progress of projects.
- **Purpose**: Ensure accountability and timely completion of projects.

Event-Based Triggers:

- **Definition**: Automated actions that occur in response to specific events, such as sending notifications or updating records.

- **Purpose**: Maintain timely responses and updates without manual intervention.

Reporting and Analytics:

- **Definition**: Tools for generating reports and analyzing data to gain insights into operations.
- **Purpose**: Support data-driven decision-making and performance monitoring.

Constituent Engagement Tools:

- **Definition**: Features that facilitate communication and interaction with residents, such as online forms and mobile apps.
- **Purpose**: Improve community engagement and responsiveness.

Mobile Device Inspections:

- **Definition**: Applications that allow inspectors to conduct and record inspections using mobile devices.
- **Purpose**: Increase the efficiency and accuracy of inspections by enabling real-time data entry.

Digital Building and Municipal Codes:

- **Definition**: Integration with digital versions of building and municipal codes.
- **Purpose**: Ensure compliance and provide easy access to regulatory information.

These functions collectively help municipalities manage records more efficiently, enhance transparency, and improve constituent services.

Several Software Solutions for Modern Records Management In Municipalities,

For modern records management in municipalities, several software solutions stand out. Here are a few notable options:

- **GovPilot**: This platform offers comprehensive digital forms, automated workflows, and GIS maps to streamline municipal operations. It supports various departmental workflows, including open records requests, business registrations, and more12.

- **CivicPlus**: Known for its user-friendly interface, CivicPlus provides tools for managing public records, community engagement, and municipal websites3.
- **EnerGov**: Part of the Tyler Technologies suite, EnerGov focuses on permitting, licensing, and regulatory management, making it ideal for municipalities looking to digitize these processes3.
- **PUBLIQ Software**: This software offers solutions for financial management, utility billing, and public records management, helping municipalities maintain transparency and efficiency3.

These platforms can help your municipality automate processes, enhance transparency, and improve overall efficiency.

Some Real-World Examples of Municipalities That Have Successfully Implemented Automated Workflows to Improve Their Operations in The USA:

1. Cape Coral, Florida

- Cape Coral has made significant strides in automation and security, earning the annual Center for Digital Government (CDG) 2017 Digital Cities Survey award for towns with populations between 125,000 and 249,9991. The city has developed electronic systems for various processes, including:

- **Permit Applications**: Residents can submit applications for permits online, streamlining the approval process.
- **Business Taxes**: Businesses can pay their taxes electronically, reducing paperwork and manual processing.
- **311 Call Center Requests**: Citizens can submit requests and complaints through an automated system, ensuring timely responses.

- **Permit Inspections**: Scheduling and conducting permit inspections have been digitized, improving efficiency and accuracy1.

2. Albuquerque, New Mexico

Albuquerque has implemented automated workflows to enhance its municipal operations. Key initiatives include:

- **Public Records Requests**: The city uses automation to handle public records requests, ensuring compliance with legal requirements and reducing processing time.
- **Inspection Scheduling:** Automated scheduling of inspections has streamlined the process, making it more efficient for both inspectors and residents1.

3. Santa Monica, California

Santa Monica has leveraged automation to improve various aspects of its municipal services:

- **Online Permitting**: The city offers an online permitting system that automates the application, review, and approval processes.
- **Citizen Engagement:** Automated workflows facilitate better communication with residents, allowing for quicker responses to inquiries and issues1.

Steps for Software Selection

1. Define Your Objectives and Criteria

- **Identify Needs**: Determine what records management functions the software must support, such as active records, inactive records, vital records, and historical records[1].
- **Set Goals:** Clearly document your records management vision, including compliance with legal and regulatory requirements2.

2. Conduct a Records Inventory

- **Assess Current Records**: Conduct an inventory to understand the volume, type, and condition of your records1.
- **Identify Gaps**: Determine what is lacking in your current system and what features are necessary in the new software1.

3. Organize a Software Evaluation Team

- **Involve Stakeholders**: Include representatives from IT, legal, finance, and other relevant departments to ensure all perspectives are considered[3].
- **Define Roles**: Assign specific roles and responsibilities to team members for a structured evaluation process3.

4. Develop Evaluation Criteria

- **Functionality**: List the essential features the software must have, such as digital forms, automated workflows, and GIS mapping1.
- **Usability**: Ensure the software is user-friendly and accessible to all staff members2.
- Scalability: Choose a solution that can grow with your municipality's needs2.

5. Gather Product Information

- **Research Options**: Look into various software solutions and gather detailed information about their features, pricing, and support3.
- **Request Demos:** Arrange for product demonstrations to see the software in action and assess its usability3.

6. Contact Other Municipalities

- **Seek Recommendations**: Reach out to other municipalities that have implemented records management software to learn from their experiences[3].
- **Review Case Studies**: Look for case studies and testimonials to understand the practical benefits and challenges of different solutions[1].

7. Score Products Against Your Criteria

- **Create a Scoring System**: Develop a scoring system to objectively evaluate each software option based on your criteria3.
- **Compare Solutions:** Use the scores to compare different solutions and narrow down your choices3.

8. Consider Total Cost of Ownership

- **Initial Costs**: Evaluate the upfront costs of purchasing and implementing the software1.
- **Ongoing Costs**: Consider maintenance, support, and upgrade costs over the software's lifecycle1.

9. Plan for Implementation

- **Develop a Timeline**: Create a detailed implementation plan with timelines and milestones

Key Components of Automated Workflows

Automated workflows in records management streamline and enhance the efficiency of handling records by automating repetitive and predictable tasks. Here's how they typically work:

Key Components of Automated Workflows:

Identification and Classification:

- **Process**: The system automatically identifies and classifies records based on predefined criteria, such as document type, content, or metadata1.
    - **Benefit**: Reduces manual sorting and ensures consistent categorization of records.

Data Capture and Entry:

- **Process**: Automated workflows capture data from various sources (e.g., scanned documents, emails) and enter it into the records management system1.
    - **Benefit**: Minimizes manual data entry errors and speeds up the process.

Routing and Approval:

- **Process**: Records are automatically routed to the appropriate personnel for review and approval based on predefined rules1.
    - **Benefit**: Ensures timely processing and reduces bottlenecks.

Retention and Disposal:

- **Process**: The system automatically applies retention schedules to records, ensuring they are kept for the required period and disposed of when no longer needed1.
    - **Benefit**: Helps maintain compliance with legal and regulatory requirements.

Notifications and Alerts:

- **Process**: Automated workflows send notifications and alerts to relevant stakeholders when actions are required, such as approvals or reviews1.
    - **Benefit**: Keeps everyone informed and ensures timely action.

Audit Trails and Reporting:

- **Process**: The system maintains detailed audit trails of all actions taken on records and generates reports for analysis1.
    - **Benefit**: Enhances transparency and accountability.

Example Workflow

DOCUMENT SUBMISSION:

- A new document is scanned and uploaded to the records management system.

AUTOMATIC CLASSIFICATION:

- The system classifies the document based on its content and metadata.

DATA EXTRACTION:

- Relevant data is extracted and entered into the system.

ROUTING FOR APPROVAL:

- The document is routed to the appropriate department for review.

APPROVAL AND FILING:

- Once approved, the document is filed in the correct digital folder.

RETENTION SCHEDULE APPLIED:

- The system applies the appropriate retention schedule.

NOTIFICATIONS SENT:

- Notifications are sent to relevant personnel about the document's status.

AUDIT TRAIL UPDATED:

- All actions are logged in the audit trail for future reference.

Benefits of Automated Workflows

- **Efficiency**: Speeds up the processing of records by reducing manual tasks.
- **Accuracy**: Minimizes errors associated with manual data entry and handling.
- **Compliance**: Ensures adherence to legal and regulatory requirements.
- **Transparency**: Provides clear audit trails and reporting capabilities.
- **Cost Savings**: Reduces the need for manual labor and physical storage.

Automated workflows transform records management into a more efficient, accurate, and compliant process, allowing municipalities to focus on more strategic tasks1.

Profiles of Some Top Records Management Software Solutions That Could Be Beneficial for Municipalities:

FOR MORE DETAILS, PLEASE REFER TO APPENDIX

1. GovPilot

- **Features**: Digital forms, automated workflows, GIS mapping, property profiles, task assignment, project tracking, event-based triggers, reporting and analytics, constituent engagement tools, mobile device inspections, and digital building and municipal codes[1].
- **Benefits**: Enhances efficiency, transparency, and constituent engagement. Cloud-based accessibility ensures continuous operation and responsiveness1.

2. CivicPlus

- **Features**: Public records management, community engagement tools, municipal website management, and integrated communication platforms[2].
- **Benefits**: User-friendly interface, promotes community engagement, and supports various municipal functions2.

3. EnerGov (Tyler Technologies)

- **Features**: Permitting, licensing, regulatory management, and comprehensive workflow automation2.
- **Benefits**: Ideal for digitizing permitting and licensing processes, improving regulatory compliance2.

4. PUBLIQ Software

- **Features**: Financial management, utility billing, public records management, and reporting tools2.
- Benefits: Enhances transparency and efficiency in financial and utility management2.

5. Contentverse

- **Features**: Document scanning, uploading, drag-and-drop file management, access control, and security3.
- **Benefits**: Customizable for various departments, ensures secure and efficient document management3.

6. FileHold

- **Features**: Document management, secure cloud or on-premise storage, and workflow automation3.
- **Benefits**: Supports large organizations in transitioning to a paperless environment, enhances compliance and efficiency3.

7. Revver

- **Features**: Document management, workflow automation, collaboration tools, and data capture3.
- **Benefits**: Transforms document-dependent work into efficient processes, supports collaborative work environments3.

8. DocuPhase

- **Features**: Document management, invoice and data capture, forms and workflow automation, and AP automation3.
- **Benefits**: Provides comprehensive financial solutions, enhances predictability and efficiency3.

These profiles should give you a good starting point for evaluating which records management software might best meet your municipality's needs.

GovPilot

GovPilot offers a wide range of features designed to enhance municipal operations. Here are some additional key features:

Additional Features

1. Task Assignment and Project Tracking:
    - GovPilot allows for efficient task assignment and project tracking, ensuring that all municipal projects are managed effectively and completed on time[1].
2. Event-Based Triggers:
    - This feature automates actions based on specific events, such as sending notifications or updating records, which helps in maintaining timely responses and updates[1].
3. Reporting and Analytics:
    - The platform provides robust reporting and analytics tools, enabling municipalities to generate detailed reports and gain insights into their operations[2].
4. Constituent Engagement Tools:
    - GovPilot includes tools for engaging with constituents, such as online forms and mobile applications, making it easier for residents to interact with their local government[2].
5. Mobile Device Inspections:
    - The GovInspect app allows for mobile inspections, enabling inspectors to conduct and record inspections directly from their mobile devices[3].

6. Digital Building and Municipal Codes:
    - Integration with the International Code Council and General Code provides instant access to digital building and municipal codes, ensuring compliance and safety[3].
7. Workflow Management and Alerts:
    - GovPilot's workflow management system helps automate and streamline processes, while alerts ensure that important tasks and deadlines are not missed[1].

These features collectively help municipalities improve efficiency, transparency, and constituent satisfaction.

Questions to Consider Before You Begin the Procurement Process

Before you begin your search for records management software solutions, you may find it useful to address the following key threshold questions. Thinking about these issues in advance will put you in a much better position to begin your search for the best solutions for your agency.

IS YOUR AGENCY READY FOR TECHNOLOGY-BASED SOLUTIONS?

Some agencies may not yet be ready to implement extensive technology-based records management solutions. Agencies in this group may still be dealing with large amounts of poorly organized paper records that are difficult and time-consuming to access. Searches for these types of records tend to be manual and labor intensive since they are often stored in cardboard boxes or file cabinets that may be in multiple locations. Some of these records may have long-term retention requirements, so until they can be converted from paper to digital records they will remain vulnerable to deterioration and loss.

Many of them may be past their scheduled retention periods which would allow them to be archived or destroyed.

WHAT TYPES OF SYSTEMS AND TECHNOLOGY TOOLS DOES YOUR AGENCY CURRENTLY USE?

Another initial step will be an assessment of all your current records management systems and tools and their functions to determine whether and to what extent they are meeting your needs and where they may be falling short. Make a list by department of the software and computer systems (stand-alone or networked) in use.

Knowing what types of records are being created, as well as what software or other systems you are currently using to create, store, or retrieve them, and how well they are working, will give you a good starting point for understanding whether your current

records management systems and tools remain useful or have become outdated. Documentation of current system deficiencies will play a key role in identifying potential software solutions and desired functions and features to address them. This inventory will help identify integration issues with respect to new and existing systems.

Making Sense of Records Management Software Options

Modern records management software is designed to provide records managers with quick and easy access to records in almost any format. Several types of records management software applications have evolved over time in response to growth in the use of new technology-based business and communication systems. In fact, there are so many now that it is easy to become overwhelmed by the myriad types of software available and the various terms used to describe them and their functions.

For the purposes of this guide, we group records management software into three major categories:

- **Custom Software** - Developed in-house, not typically an off-the-shelf solution, to meet unique records management needs
- **Specialty Software** - Off-the-shelf software that performs specific records management tasks, often focusing on specific types of content and records
- **Multi-Function Software** - Combines a range of capabilities and services into more full-featured records management systems

Also, for the purposes of this guide we are using the term “Records Management Software” as an umbrella term to refer broadly to all types of software that have been developed to manage public records (electronic and paper) even though the term can have more specialized meanings depending on the context.

CUSTOM SOFTWARE

Many local government agencies have for a long time been using a variety of common business software tools like spreadsheets and databases singly or in combination with others to catalog, reference, and store paper and electronic records. For the most part, these applications were not developed specifically to help with records management tasks, but they have been adapted and customized for this purpose by agency staff.

For some smaller agencies with fewer records to maintain and fewer public records requests, these solutions have worked because they are based on familiar systems with relatively low barriers to entry that still provide some measure of technology-based

assistance. However, it's not clear whether such "homegrown" solutions will be able to keep up with expected growth in the types and quantities of public records.

SPECIALTY SOFTWARE

The next major category of records management software consists of a variety of specialty off-the-shelf software tools that have been developed to perform very specific records management tasks like the following:

- Document Management – The first document management applications were basically designed to function as electronic filing cabinets including document storage, retrieval and imaging capabilities. These systems work together with document scanners that convert paper documents into digital versions.
- Email Records Management – These applications provide convenient management of email including archiving in a separate repository to facilitate quick search and retrieval, retention scheduling, and public records requests.
- Social Media Archiving and Storage – These tools are used to capture, store and retrieve social media posts in their native formats, from multiple platforms, using a single interface.
- Web Content Archiving and Storage – Key recordkeeping requirements for these tools include collecting website metadata, preserving content in original file formats, and retaining materials for records requests and retention.
- Records Request Management – Request management software allows agencies to manage public records request submission and fulfillment processes for both web-based and paper records requests. Web-based fulfillment uses public facing online portals for fast, efficient tracking and delivery.

Specialty off-the-shelf software solutions can offer a number of advantages over custom developed software, including immediate availability, lower cost, proven reliability based on extensive developer and user testing, and the availability of vendor-provided technical support and training in the form of phone support, user manuals, and online tutorials.

MULTI-FUNCTION SOFTWARE

Multi-function records management applications typically combine two or more software applications into more full-featured systems or packages designed to meet a wider variety of records management needs. These applications exist on a continuum of lesser to greater functionality which can make them harder to classify into specialty vs. multi-function applications, so the classifications may become less well-defined at the boundaries. These systems are known variously as "Content Management Applications" "Records Management Applications," or "Enterprise Content Management Systems" depending on the range of records management functions and features they support.

Content Management Applications. As the need for managing newer types of digital content has come about, software developers have begun developing “Content Management Applications” to reflect the fact that they can deal with more than just the scanned documents of earlier applications. These newer systems are used to create and manage many more types of digital content related to the growing use of web-based communication technologies. For example, in addition to being used for data contained in structured documents like PDFs, Word files, or Excel files, content management software can also be used to manage unstructured data from sources like webpages, images, audio, and video. Due to their ability to handle multiple document types and formats, we include content management applications in the “multi-function” group.

Records Management Applications. Specialized “Records Management Applications” integrate special records retention and destruction tools into document management systems that provide the ability to identify and schedule different types of records for automatic destruction or archiving in conformance with required retention schedules. These systems still require individual users to make decisions about which documents qualify as records and to assign applicable retention periods, so appropriate training is critical for successful implementation. Records management applications are included in the “multi-function” group primarily because of the added records retention and scheduling functionality.

Enterprise Content Management Applications. The latest full-featured multi-function systems are called “Enterprise Content Management Systems” because they combine a comprehensive range of records management functions such as workflow, imaging, Web and social media content management, and records management, to provide “cradle to grave” processing of all record types across an entire enterprise within a single application. Depending on your current and future needs, this type of software may reduce the need to purchase additional software to manage diverse types of content.

KEY SOFTWARE FUNCTIONS

Records management software has been developed to provide a number of key functions to facilitate the capture, archiving, storage, search, retrieval, redaction, tracking, reporting, management, and sharing of a wide variety of public record types. These are the key functions that constitute the vital moving parts of many records management software applications.

They may be offered in specialty software applications or embedded in more robust multi-function systems:

Archiving and Storage – Electronic records are archived when they have long-term retention needs in order to fulfill legal, business and regulatory requirements. A digital archive is a repository that stores collections of digital records to preserve and provide long-term access to the information. Digital archiving and preservation ensure the authenticity and protection of electronic records. Document storage allows users to collect a variety of electronic documents (e.g., PDFs, images and other media) and index them with folder hierarchies, metadata or tags.

Search and Retrieval – Robust search and retrieval tools that allow users to combine powerful boolean searches, metadata searches, and full text searches are essential for an effective electronic records management system. You want a system that makes it easy to search document information and text to quickly locate what you need. Ideally, this should be done from a single search platform.

Redaction Tools – Many public records requests include records that contain private and confidential information which must first be redacted before they can be released. Software tools that can quickly search for and redact confidential information can greatly reduce the time required to do this work and improve customer service. Redaction tools also have the ability to redact what can be seen and heard in video files like those produced by police body cameras.

Reporting – Reporting provides visibility into access, actions, and history of all records and documents stored within the application. A few standard reporting capabilities include disposition reports, data activity reports, workflow metrics reports, and security logs. Reporting tools should be able to report on each action, including when and by whom it was performed.

Workflow Management – Workflow management tools replace the traditional manual paper flow within an organization with automated, rules-based processes. Workflow management software “knows” all your internal administrative procedures and steps, and can automatically determine whether the process is ready for the next step. Workflow software typically integrates with other applications like document management software, databases, and email to provide continuity between separate systems.

Public Request Portal – Public facing open-data portals allow governments to provide or send records online, eliminating the need to make paper copies or use portable storage devices. Portals that include request management tools facilitate processes for receiving and responding to public records requests, including request tracking, report generation, and direct access to view and download records. Portals may also allow requesters to search and review previous records requests and previous agency responses, which can eliminate duplicate requests.

GUIDELINES FOR EVALUATING AND SELECTING RECORDS MANAGEMENT SOFTWARE

It won't be enough to do a few quick Google searches or visit a few vendor websites to find the best records management software solutions for your organization. You're going to have to do some homework first that will help you to identify those solutions that will best fit your particular needs, goals, and budget. The following basic steps for evaluating and selecting records management software are provided as a baseline that you can use in developing your own evaluation and selection process.

The basic steps include:

- Organize a software evaluation team
- Analyze current and future needs
- Develop a list of project requirements and goals
- Develop evaluation criteria
- Gather product information
- Contact other local government agencies
- Score products against your evaluation criteria
- Test before you buy
- Understand software costs
- Review procurement procedures

ORGANIZE A SOFTWARE EVALUATION TEAM

An effective software evaluation process will require a coordinated organizational effort. Ideally, the evaluation team should include IT staff, legal staff, your public records officer, and any departmental records custodians.

IT staff will play a key role in evaluating the technical aspects of hardware and software tools including how they will be integrated into your existing IT infrastructure, any changes or upgrades that might be necessary, and the requirements for initial start-up and ongoing maintenance and operation.

Records managers and departmental records custodians are familiar with the types, formats, and numbers of records your organization produces, where they can be found, and the nature and frequency of public records requests. They are also the ones who will most likely be using the technology tools that are selected through this process. In fact, by all accounts, much of your long-term success (or failure) will depend on your ability to keep these key stakeholders informed and happy.

Agency legal staff will help ensure compliance with all applicable PRA and procurement requirements regardless of which technology tools are selected.

ANALYZE CURRENT AND FUTURE NEEDS

It is important to begin with a clear understanding of your agency's current records management needs and requirements as determined by your evaluation team and other internal stakeholders.

This is where you begin to bring together the answers to all of the threshold questions listed in the previous section and more:

- What are the types and quantities of records your agency produces and manages?
- What problems do you need to solve?
- What technology tools do you currently use?
- Which records do you want to capture and manage?
- How many public records requests do you receive annually?
- Are there any existing problems with your workflow or records management system?
- How do legal requirements (PRA) affect your choices?

By documenting the answers to these questions in advance it will be much easier to identify and evaluate the software functions and features, and ultimately, the software products that will provide the best fit for your organization.

DEVELOP A LIST OF PROJECT REQUIREMENTS AND GOALS

Based on your analysis of current needs and requirements, you can begin to develop a list of project requirements and goals and a profile of the specific types of software functions and features that will be the most helpful for your organization. What do you expect the software to do for you? How do you plan on using the software? Do you need the system to interface with other applications?

Develop a list of all the features that an ideal system for you would have. You should prioritize those functions and features so you will have a better idea of those that will be essential and those that may be nice to have but not essential in case budget constraints limit your choices.

Combine the resulting list of requirements and goals into a master table that is organized into functional categories (e.g., workflow, storage, search and retrieval, and redaction), grouping requirements common to different components of the system. This information will facilitate the evaluation of software products for their functionality across multiple components.

DEVELOP EVALUATION CRITERIA

It will be helpful to develop a list of high-level evaluation criteria to evaluate and compare the software applications you are interested in. These should reflect all of the most important software functions and attributes you identified in the previous needs analysis and project goals steps.

The criteria listed below are offered as a starting point to which you can add others that reflect your own particular needs and interests. They can be prioritized and assigned varying weights to create a scoring mechanism that reflects the relative significance of the criteria you select for the evaluation. This can further assist you in narrowing the field to a few strong candidates that can be compared and tested against one another.

- User-Friendly Interface – The software should be simple for employees to use. If it is too difficult, you won't get complete buy-in from the staff, which will make the system less effective. This was the most frequently mentioned response given by survey respondents when asked for advice about key performance factors.
- Compatibility – Is the product compatible with your agency's current IT environment and any anticipated changes to that environment?
- Integration –The software should readily integrate with the business (e.g., Office applications) and communications (e.g., email) software you already use.
- Search Functionality – When responding to a public records request, much depends on your ability to locate all relevant records, so search and retrieval capabilities are critical performance factors. The software should offer a variety of options—such as keyword and full-text searches—for quickly finding files.
- Legal Requirements – Will the product allow you to meet legal requirements such as record retention compliance, timely records request responses, and Joint Legislative Audit & Review Committee (JLARC) reporting requirements? Can it be readily updated as legal requirements change?
- Help Features – How robust are the software's help features? Do they include online tutorials, clear error messages, and procedural prompts?
- Vendor Support – Ask vendors to provide you with information on what is included in their packages, such as the level of support (installation, training, and/or maintenance) and the cost of that support. Will these options be available by phone or on-site?
- Reporting Tools – The software must be able to produce reports on system activities and the status of objects within its control for management, tracking, statistical, and general purposes.
- Customization – You should be able to modify the "out of the box" solution at little or no additional cost, to better fit your agency's unique operating environment.
- Security and Access Controls – This function controls which users have access to which information. The software should have the ability to assign rights and restrictions on the use or management of particular records. A few common security features include user access authentication, password encryption, audit reports, and notifications of unusual activity.
- Metadata – Look for software solutions that can readily capture, store and produce all relevant metadata. Metadata is data about data. It is hidden information about

electronic records that is automatically created by software programs, and it describes the history, tracking, and/or management of an electronic record. It is important to understand that metadata, in addition to the content of the record itself, is subject to disclosure under the PRA.

- Determining how well the software you are evaluating meets these and other criteria you may add for your own purposes will have a significant impact on the overall experience of your system's end users and, potentially, on the ultimate success or failure of the system you choose.
- Tip: It is imperative to choose a product that is user-friendly. If it requires too many clicks, logins, or is difficult, members of your organization are not going to use it.

• GATHER PRODUCT INFORMATION

At some point you will need to begin the process of gathering more detailed information about the various software products that are available on the market.

• CONTACT OTHER LOCAL GOVERNMENT AGENCIES

Contact other local government agencies to learn about the types of records management software they are using and why. This will give you a better sense of what may work for your agency and, potentially, what you may want to avoid. When you have narrowed your search to just a few candidates, you can use our Software Profiles to contact staff in other Washington local government agencies that are using those software products.

SCORE PRODUCTS AGAINST YOUR EVALUATION CRITERIA

- In this step, competing software candidates are reviewed by your evaluation team and scored according to how well they are able to meet each of the evaluation criteria established in previous steps. Developing a set of questions related to each of the criteria will help to clarify their meaning and assign an appropriate score.
- A weighted score can be computed for each of the criteria by multiplying the weight assigned to each of the criteria by the product score. A weighted score helps to ensure that the most important criteria are given due consideration. Totals for each product can then be computed and compared.

TEST BEFORE YOU BUY

- You should test software products to the greatest extent possible before you buy them. If you know of another local agency that uses the software you are interested in, arrange to meet with them to see how it is working and ask them questions about their experience with both the software and the vendor. Verify how each product handles tasks such as records searching, system queries, help requests, report generation, and other key tasks. Does the product perform as advertised? Does it provide all of the functionality that appears on your "wish list" of desired attributes?

Be sure to take advantage of any free software trial periods the vendor may be offering. Even though you have taken steps to learn as much as you can about a particular application in advance, it is still difficult to know exactly how a particular solution will work for your organization before you have had some time to actually use it in your own environment.

UNDERSTAND SOFTWARE COSTS

The overall costs of records management software will depend on a number of factors, including how widely it will be rolled out within your organization, the level of optional functionality selected, the level of configuration or customization that will be required, the extent of initial data migration, and the level of integration with existing IT systems.

It is also essential to understand the vendor's licensing requirements and cost structure. Software vendors may have one-time annual license fees or alternatively, they might offer monthly subscription fees. Maintenance costs are additional and are usually based on a percentage of software and license costs. Multi-function software vendors usually do not openly disclose their prices but will provide a quote upon request. Generally, software prices are negotiable for larger engagements.

For on premise solutions, upfront costs can be higher for hardware and licensing fees. By comparison cloud-based solutions tend to be cheaper, since you usually only need to worry about monthly or yearly subscription costs.

SOFTWARE PROFILES KEY

All of the records management software products listed below are linked to individual software profile pages that include information about the following: software type, key software functions, brief software description, known Washington local government customers, vendor-provided customer links, product review links, cost information, integration and inputs notes, and links to the vendor sites.

MULTI-FUNCTION

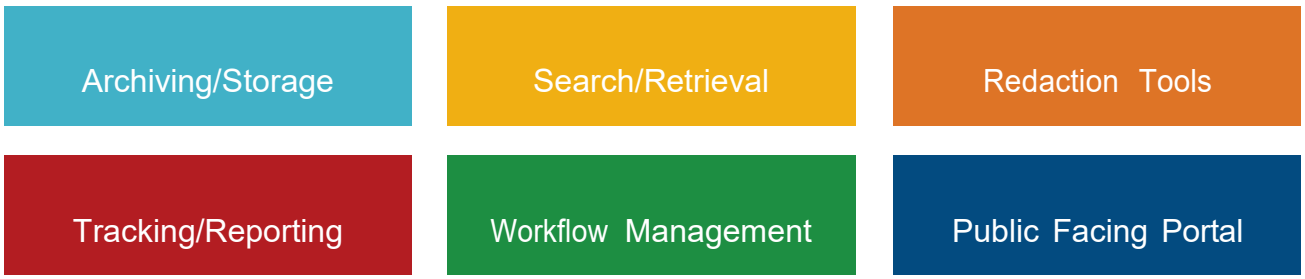
Software that combines a range of capabilities and services into more full-featured records management systems.

SPECIALTY

Off-the-shelf software that performs specific records management tasks, often focusing on specific types of content and records

Software Functions

Find the software that includes the features you need by color. Definitions for these features are included on the narrative portion of this guide, as well as the following page.



Software Function Definitions

- **Archiving/Storage** – Archiving and storage applications provide efficient storage and enhanced electronic search capability. Archived records must be stored for long-term reference and/or retention compliance Archiving is not backup (i.e. another copy of data for disaster recovery).
- **Search/Retrieval** – Robust search and retrieval tools that allow users to combine powerful boolean searches, metadata searches, and full-text searches are essential for an effective electronic records management system. You want a system that makes it easy to search document information and text to quickly locate what you need. Ideally, this should be done from a single search platform, similar to having your own Google search within your client files.
- **Redaction Tools** – Redaction tools are used to edit content and, thereby, selectively and reliably remove information from documents or websites before sharing the remaining content with someone who is not authorized to see the entire original document. Redaction tools also have the ability to redact what can be seen and heard in video files like those produced by police body cameras.
- **Tracking/Reporting** – Reporting tools allow records management professionals to make informed, data-driven decisions that encourage continuous improvement. Reporting provides visibility into access, actions, and history of all records and documents stored within the application. A few standard reporting capabilities include disposition reports, data activity reports, workflow metrics reports, and security logs.
- **Workflow Management** – Workflow management tools replace the traditional paper flow within an organization with automated, rules-based processes. Workflow management software “knows” all the procedures and steps within a procedure, and can automatically determine whether the process is ready to move to the next step. Workflow software typically integrates with other applications like document management software, databases, and email to provide process continuity between separate systems.

- **Public Facing Portal** – Public facing open-data portals allow governments to provide or send records online, eliminating the need to make paper copies or use portable storage devices. Portals that include request management tools facilitate processes for receiving and responding to public records requests, including request tracking, report generation, and direct access to view and download some records.

MULTI-FUNCTION SOFTWARE

Software	Profiled	Quick Description
Box	No	**Enterprise Content Management (ECM)Software:** provides archiving, search, redaction, reporting, workflow management, & public facing portal
Commvault	YES	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management
DocStar	YES	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management
DocuWare	YES	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management
FileNexus	No	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management
Global Relay	YES	**Records Management Software for Electronic Communications:** provides archiving, search, redaction, tracking, and workflow management
Jatheon	YES	**Records Management Software for Electronic Communications:** provides archiving, search, redaction, tracking, and workflow management

Laserfiche	YES	**ECM Software:** provides archiving, search, redaction, reporting, workflow management, and a public facing portal
Micro Focus	YES	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management
OnBase	YES	**ECM Software:** provides archiving, search, redaction, reporting, workflow management, and a public facing portal
OpenText	YES	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management
Smarsh	YES	**Records Management Software for Electronic Communications:** provides archiving, search, redaction, tracking, and workflow management tools
Veritas	YES	**ECM Software:** provides archiving, search, redaction, tracking, & workflow management

SPECIALTY SOFTWARE

Software	Profiled	Quick Description
Adobe Acrobat Pro or Document Cloud	YES	**Redaction Software:** creates and manages PDF files with redaction tools
Airlift Respond	YES	**Records Request Management Software**: provides search, redaction, reporting, workflow management, in addition to a public facing request portal
Archive Social	YES	**Social Media Archiving Software**: provides archiving, and search & retrieval
AV CaptureAll	YES	**Meeting Archiving and Management Software:** records meetings and provides archiving, search, and sharing of recordings

Barracuda	YES	**Email Records Management Software**: provides archiving, search, redaction, tracking, and workflow management
Collabware CLM	YES	**Records Management Software for SharePoint**: provides archiving, search, redaction, tracking, and workflow management
DocuXplorer	YES	**Document Management Software**: provides archiving, search, redaction, tracking, and workflow management
Exterro	YES	**eDiscovery, Legal Hold, and Records Request Management Software:** provides search, redaction, tracking & reporting, workflow management, and a public facing request portal
FileLocator	YES	**Search Software:** provides document and PST search and ediscovery tools
Google Vault	No	Email and Document Archiving Software for Google Suite: provides archiving and ediscovery tools
GovQA	YES	**Records Request Management Software:** provides search, redaction, reporting, workflow management, in addition to a public facing request portal
Software	Profiled	Quick Description
Granicus	No	**Meeting and Document Management Software:** provides archiving, search, redaction, and public facing portal
JustFOIA	No	**Records Request Management Software**: provides reporting, workflow management, in addition to a public facing request portal
Metalogix	YES	**Records Management Software for SharePoint, OneDrive, and Office 365**: provides archiving, search, redaction, tracking, and workflow management

NextRequest	YES	**Records Request Management Software**: provides redaction, tracking/reporting, and workflow management, in addition to a public facing request portal
Office / Office 365 (with SharePoint & Exchange)	YES	**Archiving and eDiscovery Software**: provides varying levels of archiving, search, redaction, retention, and tracking features for email, IM, and document files depending on enterprise plan level and if combined with SharePoint and Exchange
PageFreezer	YES	**Website and Social Media Archiving Software**: provides automatic archiving, search, redaction, tracking, workflow management, and a public facing portal
Nuance Power PDF	No	**Redaction Software**: creates, converts, assembles and redacts PDF files
Objective Redact (Formally Rapid Redact)	No	**Redaction Software**: allows redaction of multiple document types
X1	YES	**eDiscovery Software:** provides search, workflow management, and reporting
ZyLAB	YES	**eDiscovery and Information Governance Software**: provides archiving, search, redaction, reporting, and workflow management
Software	Profiled	Quick Description
KC ERMS – King County	No	**Electronic Records Management Software**: In-house developed electronic records management system
SharePoint (with Office & Exchange)	No	**Document Management Software:** provides varying levels of archiving, search, redaction, and retention features for email, IM, and documents, when combined with Office 365 Enterprise and Exchange

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Source: PRA & RECORDS MANAGEMENT TECHNOLOGY GUIDE:

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